MASTERTEC

Special articles for reinforced concrete construction

Swelling tapes

Joint sheet metal

Injection hoses

Concrete release agents

Injection resins

Sealing collars

Pipe bushings

Gasket inserts

Lightning protection

PRICE LIST 2018 2019

Price adjustment as of 1 March 2019

We adjust our prices as of 1 March 2019 and levy a surcharge of 3% on the prices in our current price list 2018/19.

Damp proof courses

Impact sound insulation

Rib laths

MASTERTEC

Special articles for reinforced concrete construction

20 years experience in the development and production of special articles for reinforced concrete construction make MASTERTEC one of the leading specialists in the area of water-impermeable structures. Our innovations in the areas of swelling tapes, joint sheet metals, injection hoses and construction chemistry, pressure water-tight service ducts, lightning protection and formwork accessories are used on building sites in 25 countries. A Europe-wide dealer network guarantees fast availability of our products.

MASTERTEC GmbH & Co. KG

Special articles for reinforced concrete construction

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Hours of business

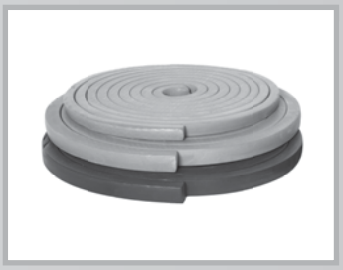
Monday – Thursday	07:15 am – 12:00 pm	12:45 – 4:30 pm
Friday	07:15 am – 12:00 pm	12:45 – 3.00 pm

MASTERTEC PRODUCT RANGE

Swelling tapes

- Bentonite swelling tapes
- Self-adhesive swelling tape
- High-pressure swelling tapes
- Swelling pastes
- Adhesives
- Grids

pages 3 – 18



Joint sheet metal

- Coated joint sheet metal
- Crack inducing profiles
- Stopend panels
- Small coils
- Connectors
- Joint tapes

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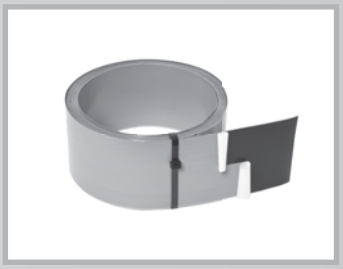

Injection hoses Construction chemistry

- Injection hoses
- Accessories for injection hoses
- Injection packers
- Injection resins
- Concrete release agents
- Film gluing system

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Pressure water-tight service ducts

- Sealing collars
- Lining pipes
- Pipe bushings
- Gasket inserts
- Sealing compound
- Pump sumps

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Lightning protection

- Lightning protection conductors
- Connectors
- Connecting clamps for reinforcements
- Fixed earthing terminals
- Wall bushings
- Earth rod

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Formwork accessories

- Damp proof courses
- Sealing plugs
- Distance tube seals
- Impact sound insulation
- Corrugated bearings
- Rib laths

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Shipping costs pages 135 – 136
General Terms and Conditions

Notes

Our pictograms

SWELLING TAPES

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Bentonite swelling tape
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MASTERSTOP SK
Self-adhesive bentonite swelling tape
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FLOWSTOP
High-pressure swelling tape
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Accessories for swelling tapes
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Swelling tapes

MASTERSTOP bentonite swelling tapes

for the waterproofing of construction joints *Technical details pages 11 – 14*

YouTube INSTALLATION FILM

Art. No.	Presentation	Cartons per pallet	Weight kg/carton	Price €/m
010010	Size: 25 x 20 mm, colour: green Carton 30 m (6 rolls of 5 m each) **Pressure-tight up to 50 m water column**	30	22.80	**10.25**
010011	Size: 25 x 20 mm, colour: black Carton 30 m (6 rolls of 5 m each) **Pressure-tight up to 50 m water column**	30	22.80	**10.25**
010012	MASTERSTOP LONG TIME coated bentonite swelling tape Size: 25 x 20 mm, colour: black Carton 30 m (6 rolls of 5 m each) **Pressure-tight up to 50 m water column**	30	23.00	**17.80**
010020	Size: 20 x 15 mm, colour: green Carton 30 m (6 rolls of 5 m each) **Pressure-tight up to 20 m water column**	30	14.30	**9.25**

Art. 010010 + 010011

Art. 010012

Art. 010020

MASTERSTOP bentonite swelling tapes

for subordinate waterproofing

Art. No.	Presentation	Cartons per pallet	Weight kg/carton	Price €/m
010016	Size: 15 x 10 mm, colour: green Carton 90 m (9 rolls of 10 m each)	30	21.00	**7.95**
010017	Size: 20 x 10 mm, colour: black Carton 54 m (9 rolls of 6 m each)	30	19.00	**9.00**

Art. 010016

Art. 010017

Swelling tapes

MASTERSTOP SK

Self-adhesive bentonite swelling tape

YouTube INSTALLATION FILM

Art. No.	Presentation	Cartons per pallet	Weight kg/carton	**Price €/m**
010025	Size: 20 x 5 mm self-adhesive Carton 90 m (5 rolls of 18 m each) **Pressure-tight up to 50 m water column** *Technical details page 15*	30	16.00	**6.10**

Art. 010025

self-adhesive

Sealing of a lining pipe with MASTERSTOP SK

FLOWSTOP

High-pressure TPE swelling tapes for waterproofing of construction joints

YouTube INSTALLATION FILM

Art. No.	Presentation	Cartons per pallet	Weight kg/carton	**Price €/m**
010040	**Size 20 x 5 mm** Carton 120 m (6 rolls of 20 m each)	30	18.00	**7.65**
010045	**Size 20 x 10 mm** Carton 60 m (6 rolls of 10 m each) *Technical details pages 16 – 18*	30	17.00	**11.40**

FLOWSTOP is fixed using POWER swelling tape adhesive.

Art. 010040

Art. 010045

Accessories for swelling tapes

Adhesives and swelling pastes

Technical details pages 8 – 10

Art. No.	Presentation	Packaging	Weight kg/carton	**Price €**
010050	**Swelling tape adhesive for bentonite swelling tapes** cartridge 310 ml, usage: 1 cartridge=approx.8 m suitable for damp substrates	20 cartridges per carton	11.60	**12.80 cartridge**
010052	**POWER swelling tape adhesive,** high-pressure adhesive for MASTERSTOP and FLOWSTOP swelling tapes Cartridge 310 ml, 1 cartridge=approx.8 m suitable for damp substrates	20 cartridges per carton	10.00	**16.20 cartridge**
010036	**MasterColl,** swelling tape adhesive containing bentonite, for MASTERSTOP and FLOWSTOP swelling tapes cartridge 310 ml, usage: 1 cartridge=approx.8 m suitable for damp substrates	12 cartridges per carton	5.70	**24.60 cartridge**
010030	**MasterMastic PU swelling paste,** Swelling paste, polyurethane-based, for waterproofing of construction joints and wall penetrations cartridge 310 ml usage: construction joint approx. 250 – 300 ml/m usage: wall penetration approx. 80 – 100 ml/m	12 cartridges per carton	5.90	**25.60 cartridge**
010033	**MasterMastic PU swelling paste,** Swelling paste, polyurethane-based, for waterproofing of construction joints and wall penetrations 600 ml aluminium pouch usage: construction joint approx. 250 – 300 ml/m usage: opening approx. 80 – 100 ml/m	12 pouches per carton	10.40	**42.70 pouch**
010038	**Applicator gun** for 310 ml cartridge Professional cartridge gun with aluminium casing, hardened coupling and push rod	1	0.90	**42.50**
010039	**Applicator gun** for 600 ml aluminium pouch incl. 3 nozzles; professional cartridge gun with ergonomic handle, hardened coupling and push rod, aluminium tube and ring nuts	1	1.25	**73.50**
010037	**Nozzle for applicator gun 600 ml**	1	0.05	**4.00**

Art. 010050

Art. 010052

Art. 010036

Art. 010030

Art. 010033

Art. 010038

Art. 010039

Art. 010037

Accessories for swelling tapes

Fastening grids

Art. No.	Presentation	Packaging	Weight kg/carton	**Price €**
010055	**Swelling tape grid for 20/15** Length: 1 m	30 m per carton 160 cart. per pallet	1.95 kg	**1.65/m**
010060	**Swelling tape grid for 25/20** Length: 1 m	30 m per carton 160 cart. per pallet	2.60 kg	**1.70/m**
010065	**Swelling tape grid for MASTERSTOP LONG TIME 25/20,** length 1 m	30 m per carton 60 cart. per pallet	4.90 kg	**3.05/m**

Art. 010055

Art. 010060

Art. 010065

Fastening nails

Art. No.	Presentation	Packaging	Weight kg/carton	**Price €**
010080	**Nails for bolt-firing tool** Length: 42 mm with big washer	100 pcs. per bag	0.90 kg	**25.90** **100 pcs.**
010090	**Nails for manual fastening** Length: 40 mm with washer	250 pcs. per carton	1.00 kg	**17.15** **100 pcs.**

Art. 010080

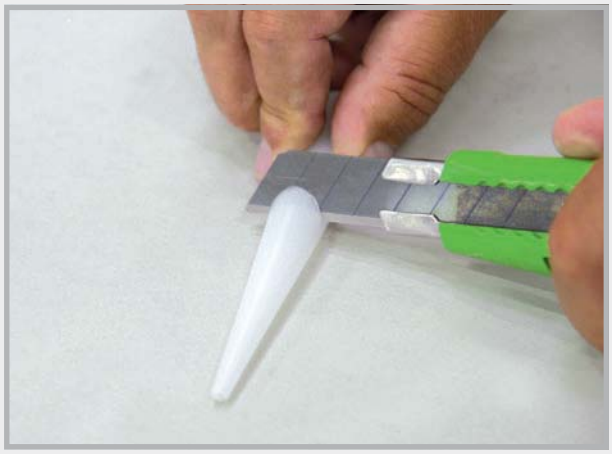
Art. 010090

Adhesives and swelling pastes

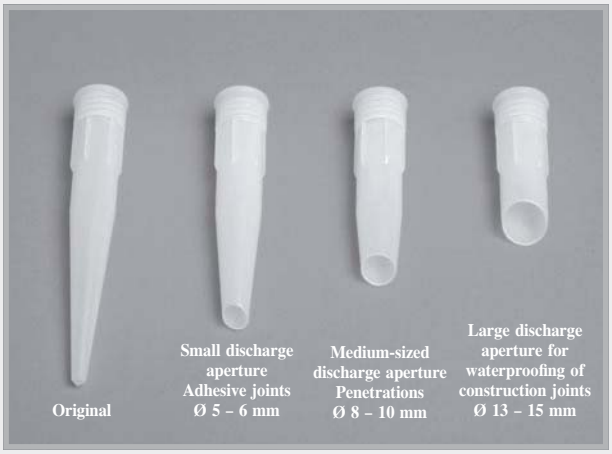
MASTERTEC produces adhesives for swelling tapes and swelling pastes for waterproofing various types and qualities of construction joints and wall penetrations.

Preparatory work

Cutting the cartridge tips

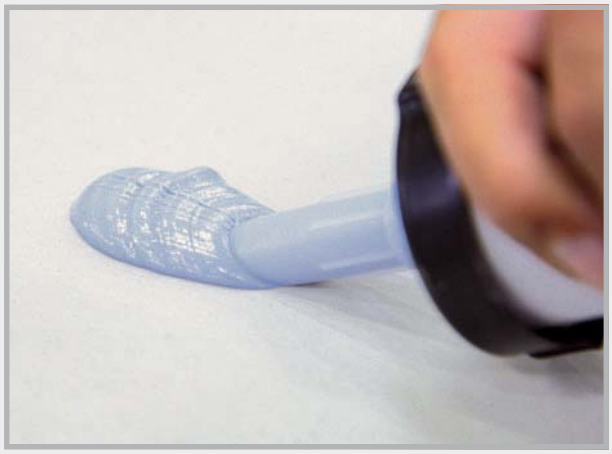


The nozzle is cut off to suit the various areas of application.

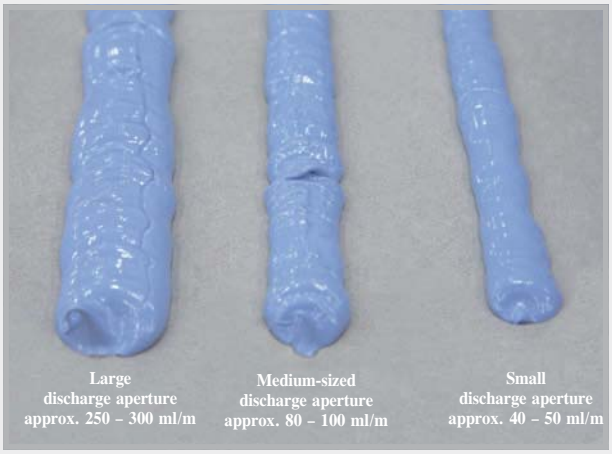


Cuts

Application of the adhesives or pastes



Example: Large discharge aperture
Usage approx. 250 – 300 ml/m



Adhesives + swelling pastes

Swelling tape adhesive

Single-component, solvent-free sealant for bonding of MASTERSTOP bentonite swelling tapes.

Usage:	40 – 50 ml/m
Application:	for dry and slightly moist substrates
Bonds with:	Concrete
Application temperature:	+5°C to +45°C
Thermal stability following curing:	-20°C to +70°C
Setting time:	approx. 8 hrs. at +20°C
Environmental aspects:	Once cured, the product is odourless and physiologically harmless.
Supplied as:	Cartridge 310 ml

Apply adhesive to clean substrate

Offer up the swelling tape

POWER swelling tape adhesive

Single-component solvent-free sealant for bonding of MASTERSTOP and FLOWSTOP swelling tapes. The POWER version is a high-pressure adhesive.

Usage:	40 – 50 ml/m
Application:	for dry and moist substrates
Bonds with:	Concrete, steel, rigid PVC, soft PVC, stone Achieves a very high mechanical strength
Application temperature:	+5°C to +45°C
Thermal stability following curing:	-30°C to +80°C
Setting time:	approx. 8 hrs. at +20°C
Environmental aspects:	Once cured, the product is odourless and physiologically harmless. Highly recommended environmentally compatible building product
Supplied as:	Cartridge 310 ml

Press the swelling tape into the adhesive bed

POWER high-pressure adhesive for MASTERSTOP and FLOW-STOP

YouTube
INSTALLATION FILM

MasterColl swelling tape adhesive – for outstanding reliability

Single-component sealant containing bentonite for bonding of MASTERSTOP and FLOWSTOP swelling tapes.
The intrinsic swelling characteristics of the bentonite component in the adhesive effectively support the sealing performance of the swelling tapes.

Usage:	40 – 50 ml/m
Application:	for dry and moist substrates
Bonds with:	Concrete, steel, stone, rigid PVC
Application temperature:	+5°C to +45°C
Setting time:	approx. 6 – 8 hrs. at +20°C
Environmental aspects:	Solvent-based adhesive with slight odour
Supplied as:	Cartridge 310 ml

The swelling adhesive

MasterColl for bentonite swelling tapes and FLOWSTOP

MasterMastic PU swelling paste

YouTube INSTALLATION FILM

Single-component, solvent-free polyurethane-based swelling paste.
MasterMastic PU is a swellable sealing compound for waterproofing of concrete construction joints and penetrations. Upon contact with water, the swelling paste expands and seals the joint or penetration reliably and permanently.

Usage:	250 – 300 ml/m
Application:	for dry and moist substrates
Adheres to:	Concrete, steel, stone, rigid PVC - **not suitable for polypropylene!**
Temperature:	+5°C to +45°C
Setting speed:	approx. 6 – 7 mm/24 hrs.
Environmental aspects:	MasterMastic PU contains no solvents and once cured is physiologically harmless.
Supplied as:	Cartridge 310 ml Aluminium pouch 600 ml

Medium-sized discharge aperture for penetrations

Penetration prepared for placement of concrete

Large discharge aperture for waterproofing of construction joints

A concrete cover of 8 cm must be ensured.
Installation inside reinforcement.

MASTERSTOP swelling tapes

- General Building Supervisory Test Certificate

Product description

MASTERSTOP bentonite swelling tapes have a proven track record which goes back many years in construction practise. They swell upon contact with water and seal cracks or construction joints reliably and permanently.

The test certificates confirm the product's suitability for various applications.

YouTube INSTALLATION FILM

The convincing advantages of MASTERSTOP bentonite swelling tapes

- Easy and safe installation
- No foundation curbs
- Self-injecting effect
  The swelling tapes penetrate cracks and cavities
- Environmentally friendly
- No fittings or welding
- The swelling and shrinking process is reversible
- Dimensionally stable and not sticky
- No cuttings or oddments
- Safety proved by extensive testing

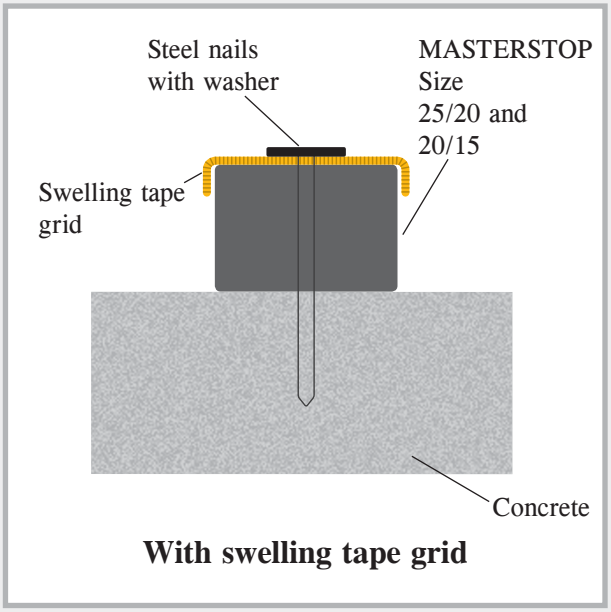
Resistance of MASTERSTOP bentonite swelling tapes and MASTERSTOP SK

Medium	resistant	not resistant
Alkalis in general	✓	
Urea	✓	
Liquid manure/slurry	✓	
Biogas	✓	
Radon	✓	
De-icing salt	✓	
Substances obtained by means of fermentation	✓	
Substances obtained by means of composting	✓	
Waste water in water treatment plants	✓	
Petrol		✗
Diesel		✗
Heating oil		✗

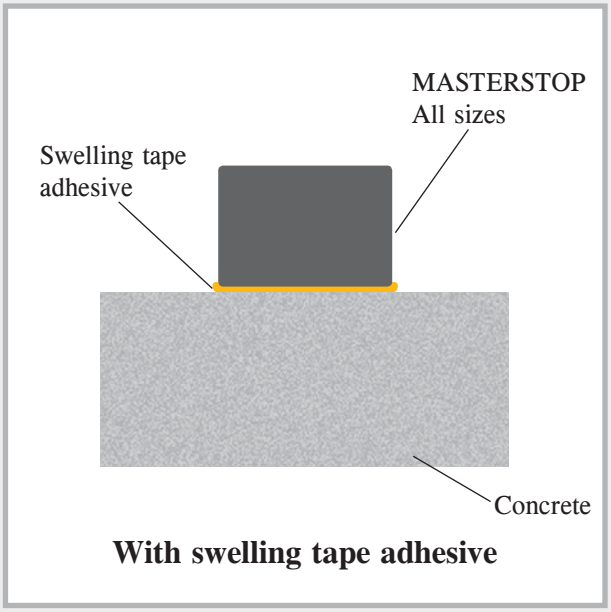
Further resistances are available on request.

Installation

MASTERSTOP bentonite swelling tapes are fixed with a swelling tape grid or swelling tape adhesive. They are laid inside the reinforcement with a concrete cover of 8 cm.



With swelling tape grid

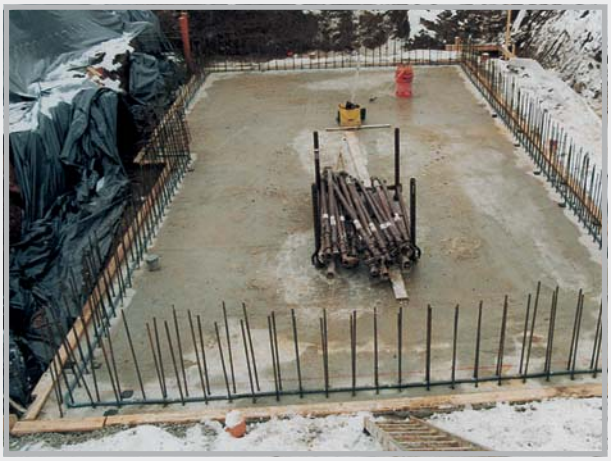


With swelling tape adhesive

At the construction site

Installation of MASTERSTOP

Size 25/20 mm



Foundation/wall connection

Installation with fastening grid and nails

Installation with swelling tape adhesive

Pipe sealing

MASTERSTOP LONG TIME

All-weather bentonite swelling tape

Product description and function

MASTERSTOP LONG TIME 25x20 mm is a coated bentonite swelling tape for the waterproofing of foundation/foundation, foundation/wall and wall/wall construction joints.
MASTERSTOP LONG TIME is equipped with a protective film which enables installation in all kinds of weather.
The protective film ensures that the swelling tape can be exposed to rain and in-situ water for at least 10 days without expanding.
This changes when it is encased in concrete. The composition of the concrete causes the protective film to lose its effect after a few days so that the swelling tape is set free and seals the joints safely and permanently in case of water ingress.
The tape is not suitable for installation underwater or long-term immersion in water.

Rain protection 10 days
Pressure-tight 50 m water column

Safety

MASTERSTOP LONG TIME is not a hazardous substance and is uncomplicated to use and handle.

Storage

MASTERSTOP LONG TIME must be stored in a dry place and protected from contamination and mechanical damage. Swelling tapes which have already started expanding as well as swelling tapes with an altered geometry or damaged protective film must not be installed.

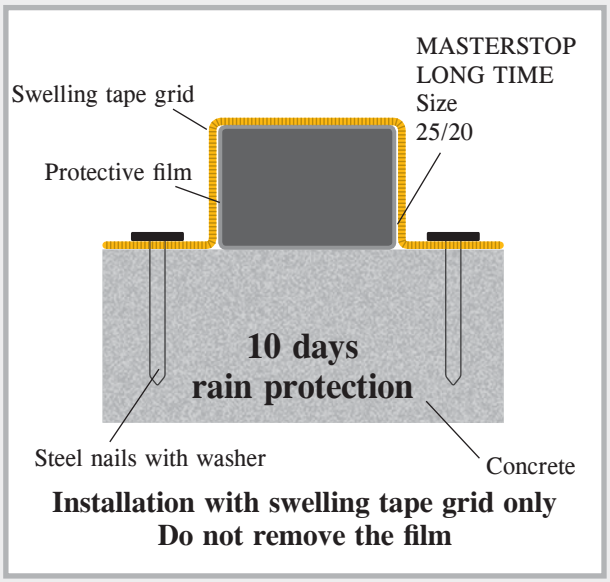
Comparison of swelling tape with and without protective film

The convincing advantages of MASTERSTOP LONG TIME

- All-weather installation
- No foundation curb
- Self-injecting effect
  The swelling tapes penetrate cracks and cavities
- Environmentally friendly
- No fittings or welding
- Swelling and shrinking process is reversible
- Dimensionally stable and not sticky
- No cuttings or oddments
- Safety proved by extensive testing

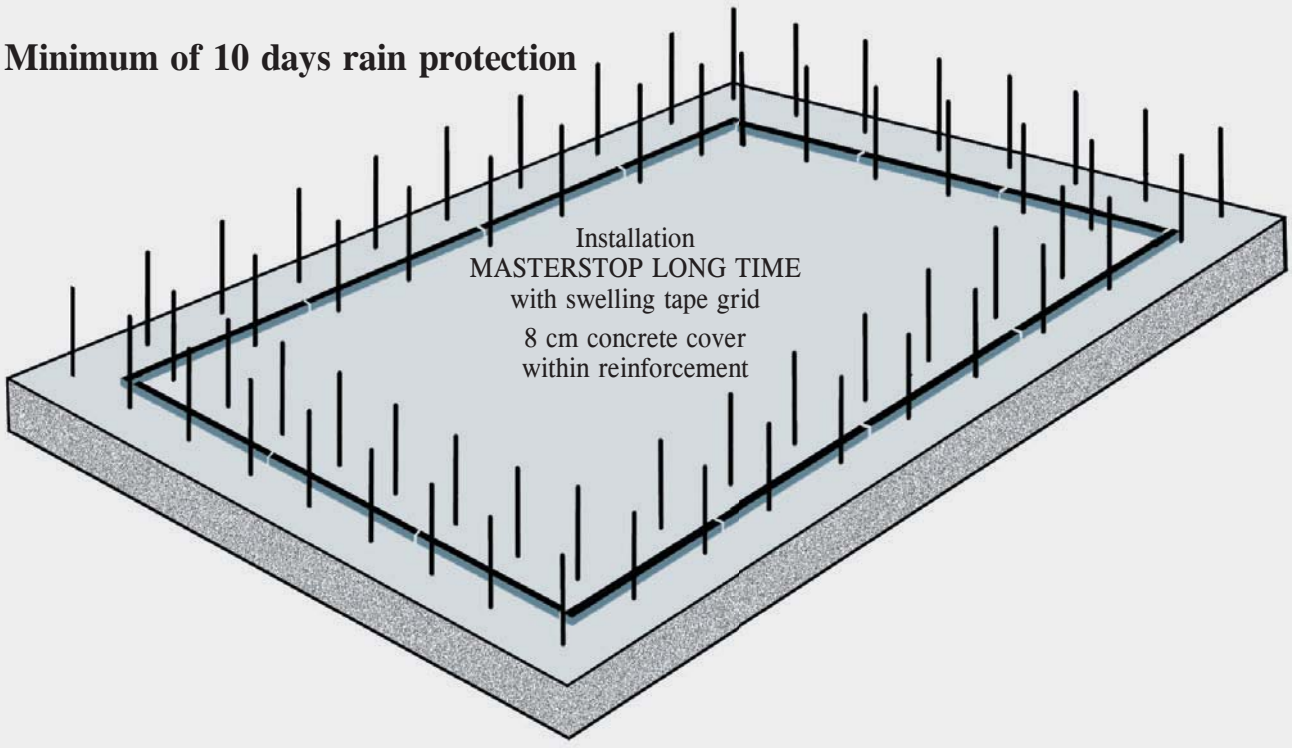
Installation of LONG TIME

- MASTERSTOP LONG TIME is installed in the centre of the joint within the reinforcement.
- An adequate concrete cover of at least 8 cm must be ensured.
- The swelling tape cannot be glued and instead must be fixed to the substrate using a swelling tape grid. To ensure that the swelling tape lies flat on the concrete substrate, the grid usually needs to be fixed to the concrete using nails every 25 cm in the longitudinal direction. The distance between the nails can be reduced if necessary.
- Make sure that the protective film is not damaged.
- The tape ends are butt jointed. If tape sections are used, pull back the protective film, cut off approx. 5 cm of the swelling tape and turn down the film in order to prevent contact with water.
- The concrete substrate must be level and free of loose or separating particles and must not be excessively rough.



Installation with swelling tape grid only
Do not remove the film

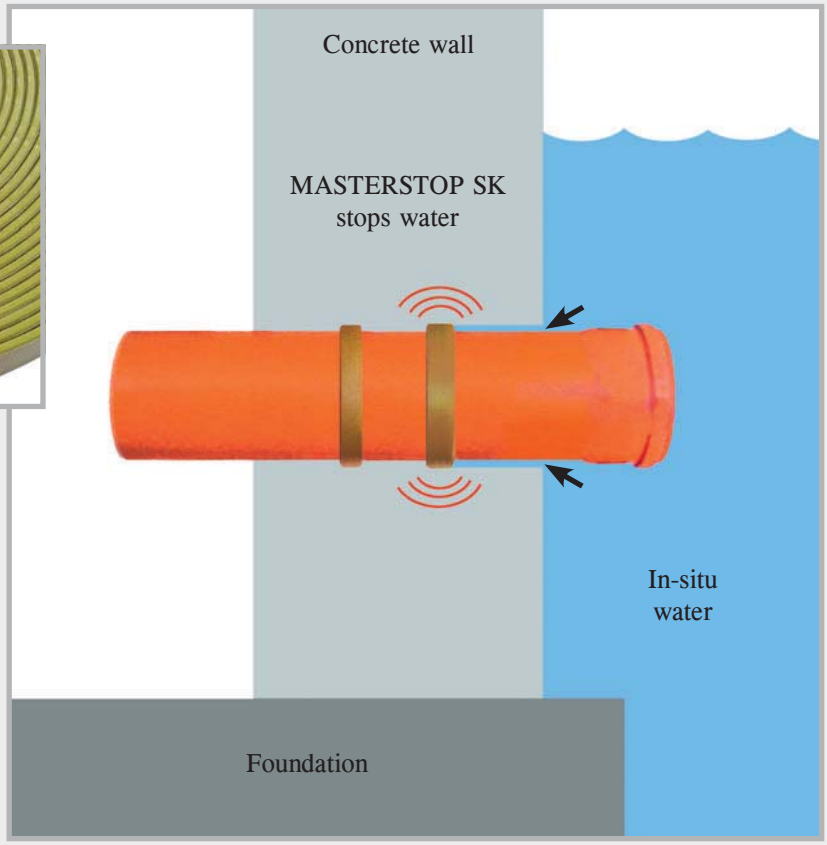
Minimum of 10 days rain protection



MASTERSTOP SK

Self-adhesive bentonite swelling tape

YouTube INSTALLATION FILM



Product description

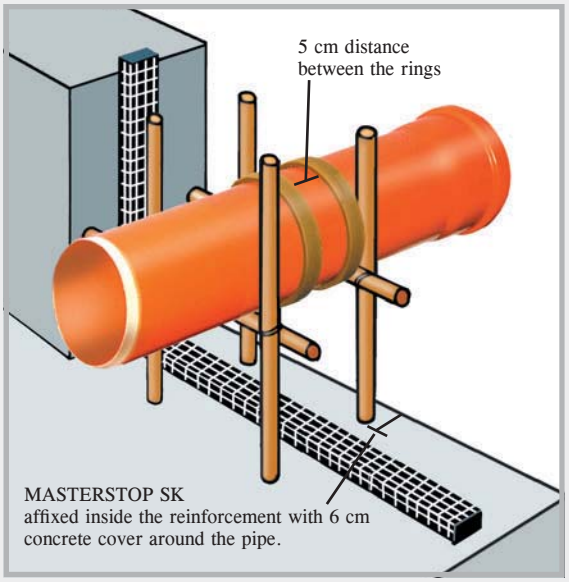
MASTERSTOP SK is a self-adhesive bentonite swelling tape which expands on contact with water and prevents water penetration.

Testing

- Tested by tBU Greven up to 50 m water column
- Environmentally friendly

Application

- Water-impermeable integration of pipe ducts in concrete buildings
- Waterproofing of reinforcement connections
- Waterproofing of ground drains



Installation

- Pull off silicone paper and affix 2 rings of MASTERSTOP SK around the pipe to be waterproofed.
- Butt joint ends, no overlaps
- The surface of the pipes must be rigid
- MASTERSTOP SK adheres to metal, plastic, PVC and stone.
- Secure MASTERSTOP SK with binding wire if necessary.

FLOWSTOP

High-pressure swelling tapes

YouTube INSTALLATION FILM

For sealing construction joints and penetrations in concrete structures. With a proven ability to withstand a pressure of 8 bar, FLOWSTOP satisfies the conditions of the German WU directive on water-impermeable concrete structures for a continuous pressure of 2 bar, as well as international standards that require high pressure resistance.

- General Building Supervisory Test Certificate
- Suitable for zones with frequently varying water levels
- Good chemical resistance
- Dimensionally stable
- Maximum pressure of 8 bar with size 20 x 5 mm
- Long-term testing for more than 250 days
- Easy installation with the POWER swelling tape adhesive
- No foundation curb required

Product description

FLOWSTOP is a high-pressure resistant swelling tape for construction joints and penetrations in concrete construction.
A reliable and permanent seal up to a water column of 80 m is achieved when using the size 20 x 5 mm.

Technical data

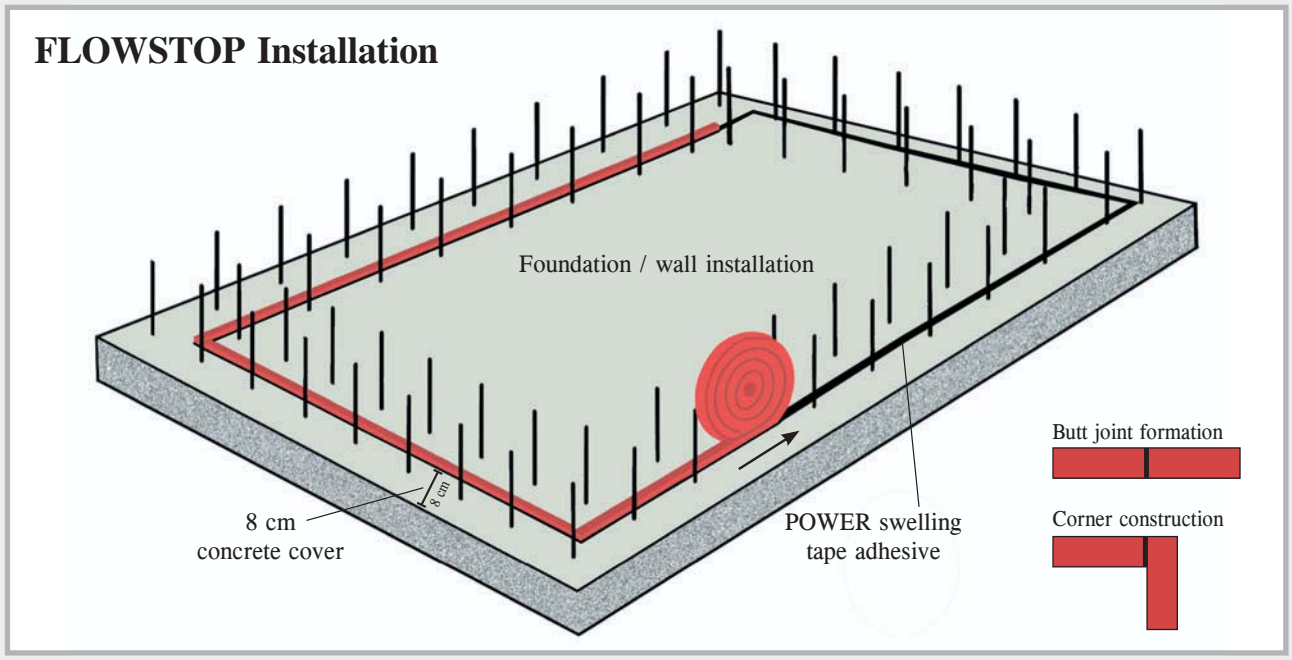
Chemical basis:	Modified TPE
Colour:	Red
Finish:	Smooth
Profiles:	20 x 5 mm 20 x 10 mm
Temperature range:	-30°C to +60°C
Storage:	Dry and protected

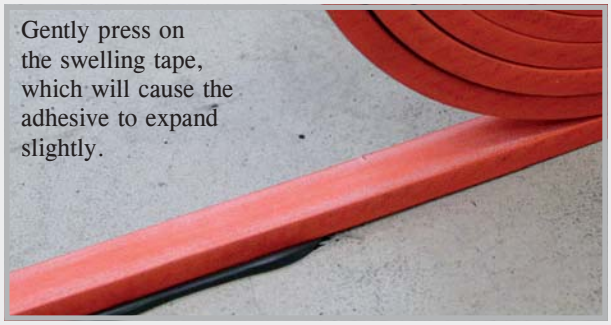
Resistance

- Diluted acids and alkalis
- Salt water
- Methane gas + radon
- Liquid manure + slurry
- Fermentation mash + biogas
- Concrete alkalinity
- Liquid aggressive to concrete

Installation

The substrate must be clean, dry and free of loose particles. Once the POWER swelling tape adhesive has been applied in the centre of the joint, the tape is placed on the adhesive and gently pressed in. A concrete cover of 8 cm inside the reinforcement must be ensured.
Not suitable for installation with swelling tape grid.
Prior to concreting the tape must not lie in water for an extended period.
Rain water that runs off does not activate the swelling.





Swelling behaviour

The swelling behaviour of FLOWSTOP was tested over 180 days through immersion in 4 test liquids.

Test liquid	Maximum expansion in all test cycles
Neutral liquid with pH value 7	600 %
Alkaline liquid with pH value 13	350 %
Liquid aggressive to concrete with pH value 4.5	200 %
Salt water	100 %

FLOWSTOP 20 x 5 mm and 20 x 10 mm
Original and in expanded form

The final expansion was reached after 6 to 10 days, depending on the test liquid. These periods provide adequate time for secure installation.

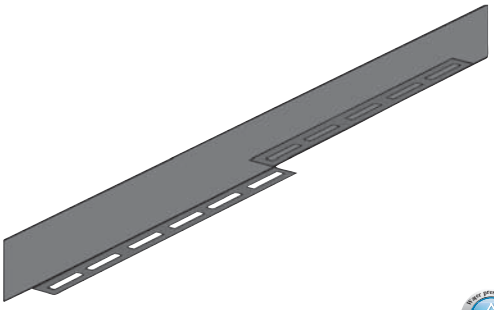
FLOWSTOP test procedure

Water pressure [bar]	Test duration days	Water passage	Remarks
0.03	3	not measurable	Adjustment of the construction joint to 0.25 mm and water filling without pressure Water penetration from all sides, quickly reducing with increased swelling
0.2	1	0	Start of the first exposure to pressurised water
0.4	1	0	impermeable
0.6	1	0	impermeable
0.8	1	0	impermeable
1.0	3	0	impermeable
2.0	1	0	impermeable
3.0	1	0	impermeable
4.0	1	0	impermeable
5.0	14	0	impermeable
–	43	–	Six weeks of drying with hot air supply
0.03	3	0	Water filling without pressure, impermeable
0.2	1	0	Start of the second exposure to pressurised water, impermeable
0.4	1	0	impermeable
0.6	1	0	impermeable
0.8	1	0	impermeable

Water pressure [bar]	Test duration days	Water passage	Remarks
1.0	3	0	impermeable
2.0	1	0	impermeable
3.0	1	0	impermeable
4.0	1	0	impermeable
5.0	14	0	impermeable
–	43	–	Six weeks of drying with hot air supply
0.03	3	0	Water filling without pressure, impermeable
0.2	1	0	Start of the third exposure to pressurised water, impermeable
0.4	1	0	impermeable
0.6	1	0	impermeable
0.8	1	0	impermeable
1.0	3	0	impermeable
2.0	1	0	impermeable
3.0	1	0	impermeable
4.0	1	0	impermeable
5.0	14	0	impermeable
6.0	28	0	Additional pressure level, impermeable
7.0	28	0	Additional pressure level, impermeable
8.0	28	0	Additional pressure level, impermeable

JOINT SHEET METAL

VB joint sheet metal
High-pressure metal sheets
pages 20 – 21



MASTER joint sheet metal
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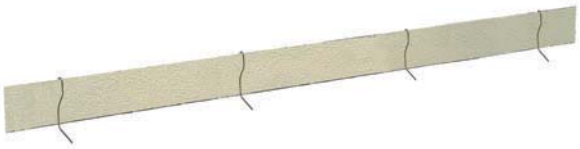


Joint sheet metal MB
with mineral coating
page 22

Joint sheet metal AKTIV
with bentonite coating
page 22

Crack inducing profiles
page 23

Stopend panels
pages 24 – 26

Small coils + connectors
pages 28 – 29

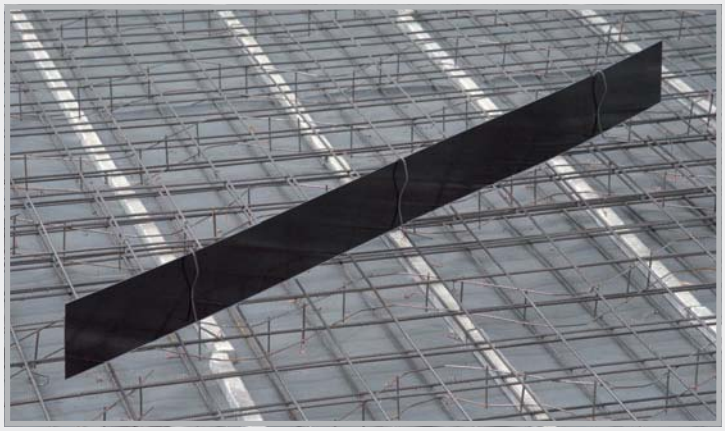
MASTER-MultiFlex
active joint tape
pages 30 – 31

Coated joint sheet metal

VB joint sheet metal high-pressure metal sheets

Polymer-coated joint sheet metals for waterproofing of construction joints.

- Very high-pressure water tests
- Resistance tests
- All-weather installation
  -20°C to +70°C



VB joint sheet metal in strips

Art. No.	Presentation	Packaging	Weight kg	**Price €**
070450	**VB joint sheet metal** **length 2.4 m, width 160 mm** fully coated on both sides incl. 55 fixing clips and 150 mounting brackets *Technical details page 32*	50 pcs. per crate 12 crates per pallet	130.00 per crate	**7.55/m**
070452	**VB joint sheet metal** **length 2.0 m, width 160 mm** fully coated on both sides incl. 55 fixing clips and 150 mounting brackets *Technical details page 32*	50 pcs. per crate 12 crates per pallet	110.00 per crate	**7.55/m**
070470	**VB joint sheet metal** **length 2.0 m, width 160 mm** fully coated on both sides incl. 20 fixing clips and 40 mounting brackets *Technical details page 32*	Carton/30m 15 strips each 2.00 m long pallet: 32 cartons	30.50 per carton	**7.55/m**
070455	**Joint sheet metal 80** **length 2.4 m, width 80 mm** fully coated on both sides incl. 55 fixing clips *Technical details page 43*	50 pcs. per crate	74.00 per crate	**7.40/m**

VB joint sheet metal in rolls

The packaging in rolls minimises joints and therefore increases the installation reliability.

VB1 fully coated on one side

VB2 fully coated on both sides

Art. No.	Presentation	Packaging	Weight kg	**Price €**
070462	**Joint sheet metal roll 240 VB2** Joint sheet metal fully coated on both sides width 240 mm, roll length 20 m incl. 30 mounting brackets + 4 fixing clips *Technical details page 32*	pallet: 24 cartons	31.00 per roll	**11.95/m**
070461	**Joint sheet metal roll 160 VB2** Joint sheet metal fully coated on both sides width 160 mm, roll length 20 m incl. 30 mounting brackets + 2 fixing clips *Technical details page 32*	pallet: 36 cartons	21.00 per roll	**7.70/m**
070460	**Joint sheet metal roll 160 VB1** Joint sheet metal fully coated on one side width 160 mm, roll length 20 m incl. 30 mounting brackets + 2 fixing clips *Technical details page 32*	pallet: 36 cartons	19.00 per roll	**7.00/m**
070463	**Joint sheet metal roll 120 VB1** Joint sheet metal fully coated on one side width 120 mm, roll length 20 m incl. 30 mounting brackets + 2 fixing clips *Technical details page 32*	pallet: 48 cartons one roll per carton incl. fastening material	15.00 per roll	**6.30/m**

Packaging

Pallet containing VB strips in crates

Pallet containing VB strips in cartons

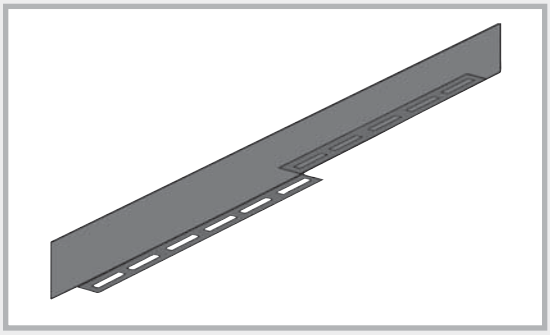
Pallet containing joint sheet metal rolls in cartons

Mounting brackets and fixing clips are always included.

Coated joint sheet metal

MASTER joint sheet metal

The metal waterproofing profile with support rail.

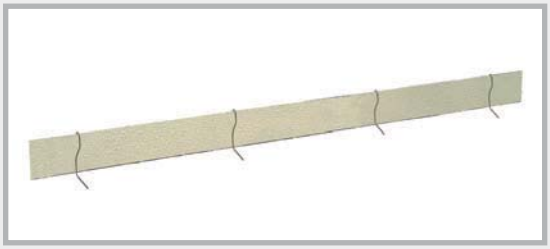


Art. No.	Presentation	Packaging	Weight/kg	Price/€
070200	**MASTER joint sheet metal** **length 2.5 m, width 160 mm** fully coated sealing element with support rail, 20 mm perforated *Technical details pages 33 – 34*	40 pcs. per crate 12 crates per pallet	155.00 per crate	**8.30/m**

Joint sheet metal MB

Mineral-coated joint sheet metals for waterproofing of construction joints.

- Water pressure test
- Resistance test
- All-weather installation -20°C to +70°C



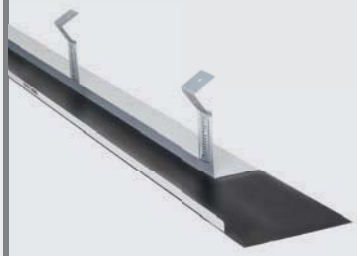
Art. No.	Presentation	Packaging	Weight/kg	Price/€
070482	**Joint sheet metal MB 160, overlap type** with full mineral coating on both sides length 2400 mm, width 160 mm incl. 150 mounting brackets 55 fixing clips *Technical details page 35*	50 pcs. per crate 12 crates per pallet	135.00 per crate	**7.30/m**
070486	**Joint sheet metal MB 120, overlap type** with full mineral coating on both sides length 2400 mm, width 120 mm incl. 150 mounting brackets 55 fixing clips *Technical details page 35*	50 pcs. per crate 12 crates per pallet	100.00 per crate	**7.05/m**

Joint sheet metal AKTIV

The active bentonite-coated waterproofing

Art. No.	Presentation	Packaging	Weight/kg	Price/€
070490	**Joint sheet metal AKTIV,** fully coated on one side with bentonite width 160 mm, roll length 10 m incl. 20 mounting brackets, 4 fixing clips + 1.5 m adhesive tape *Technical details page 36*	Pallet 36 cartons	15.00 per roll	**12.30/m**

Crack inducing profiles

Art. No.	Presentation	Packaging	Weight kg	**Price €**
070250	**MASTER joint sheet metal SFG** incl. 5 nail plugs 5/50 and 4 fixing clips adjustable bracket *Technical details pages 37 – 39*	Length: 2.50 m pallet: 88 pcs. Extension at the construction site possible	4.80 kg per element	**27.50/m**
070260	**MASTER joint sheet metal SFE** incl. 5 nail plugs 5/50 and 4 fixing clips adjustable bracket *Technical details pages 37 – 39*	Length: 2.50 m pallet: 80 pcs. Extension at the construction site possible	4.80 kg per element	**28.95/m**
070263 	**MASTER joint sheet metal FE** incl. 5 nail plugs 5/50 and 4 fixing clips, adjustable bracket *Technical details pages 37 – 39*	Length: 2.50 m pallet: 72 pcs. Extension at the construction site possible	5.00 kg per element	**28.95/m**
070278	**SRF 125 Multi** **Cavity wall type** **Coated crack inducing profile** incl. 2 fixing clips, with perforated support rail and perforated foldable retaining plates Type for cavity walls Wall thicknesses up to 40 cm *Technical details page 40*	Length: 2.50 m pallet: 120 pcs.	4.60 kg per element	**25.40/m**
070280	**SRF 125 Multi** **In-situ concrete wall type** **Coated crack inducing profile** incl. 2 fixing clips, with perforated support rail and perforated foldable retaining plates Type for in-situ concrete walls Wall thicknesses up to 36.5 cm *Technical details page 40*	Length: 2.50 m pallet: 120 pcs.	5.40 kg per element	**25.90/m**

Stopend panels ABS

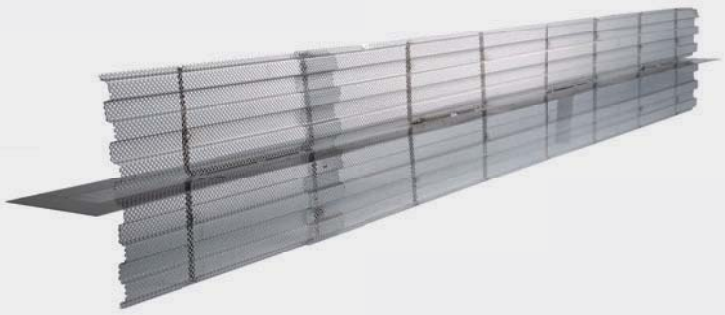
Rough or toothed joint with integrated coated joint sheet metal

ABS rough

Art. No.	Presentation	Installation dimension E = width of perforated plate	Packaging	Weight kg per element	Price €/m
070281	**ABS 130 rough**	Perforated plate 130 mm	Length: 2.50 m	4.80	**31.90**
070282	**ABS 160 rough**	Perforated plate 160 mm	Length: 2.50 m	6.00	**32.90**
070284	**ABS 200 rough**	Perforated plate 200 mm	Length: 2.50 m	6.50	**33.50**
070287	**ABS 250 rough**	Perforated plate 250 mm	Length: 2.50 m	8.00	**39.90**
070289	**ABS 300 rough**	Perforated plate 300 mm	Length: 2.50 m	8.40	**45.90**
070291	**ABS 400 rough**	Perforated plate 400 mm	Length: 2.50 m	9.90	**48.90**
070293	**ABS 500 rough**	Perforated plate 500 mm	Length: 2.50 m	10.60	**53.90**
070295	**ABS 600 rough**	Perforated plate 600 mm	Length: 2.50 m	11.00	**58.90**
070297	**ABS 700 rough**	Perforated plate 700 mm	Length: 2.50 m	13.00	**61.90**
070299	**ABS 800 rough**	Perforated plate 800 mm	Length: 2.50 m	14.00	**63.90**
070301	**ABS 900 rough**	Perforated plate 900 mm	Length: 2.50 m	15.00	**65.90**
070303	**ABS 1000 rough**	Perforated plate 1000 mm	Length: 2.50 m	16.00	**68.90**

Technical details page 41

All intermediate sizes are available at short notice



ABS toothed

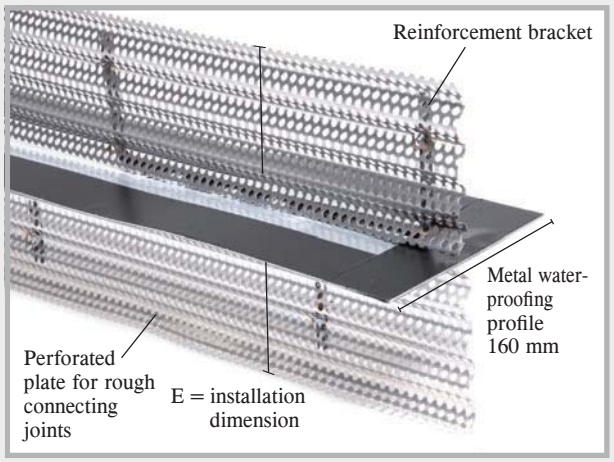
according to DIN EN 1045-1/EC2

Art. No.	Presentation	Installation dimension E = width of perforated plate	Packaging	Weight kg per element	Price €/m
070362	**ABS 160 toothed**	Perforated plate 160 mm	Length: 2.50 m	6.00	**35.10**
070364	**ABS 200 toothed**	Perforated plate 200 mm	Length: 2.50 m	6.50	**36.20**
070366	**ABS 250 toothed**	Perforated plate 250 mm	Length: 2.50 m	7.50	**36.90**
070368	**ABS 300 toothed**	Perforated plate 300 mm	Length: 2.50 m	8.00	**43.90**
070370	**ABS 400 toothed**	Perforated plate 400 mm	Length: 2.50 m	9.20	**50.50**
070372	**ABS 500 toothed**	Perforated plate 500 mm	Length: 2.50 m	10.10	**53.80**
070374	**ABS 600 toothed**	Perforated plate 600 mm	Length: 2.50 m	11.20	**59.30**
070376	**ABS 700 toothed**	Perforated plate 700 mm	Length: 2.50 m	13.20	**64.80**
070378	**ABS 800 toothed**	Perforated plate 800 mm	Length: 2.50 m	14.00	**68.10**
070380	**ABS 900 toothed**	Perforated plate 900 mm	Length: 2.50 m	15.30	**72.50**
070382	**ABS 1000 toothed**	Perforated plate 1000 mm	Length: 2.50 m	16.50	**75.80**

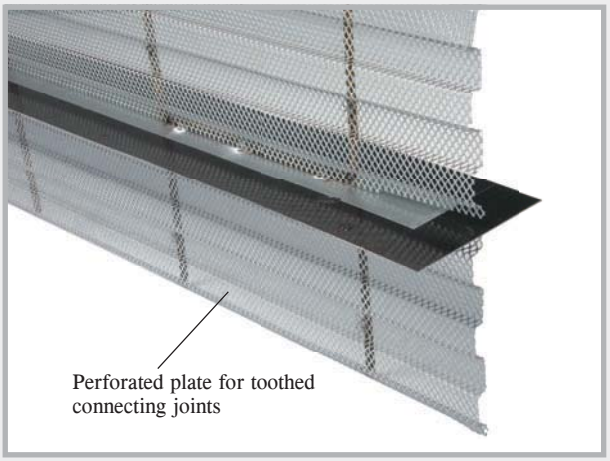
Technical details page 41

All intermediate sizes are available at short notice

ABS rough



ABS toothed

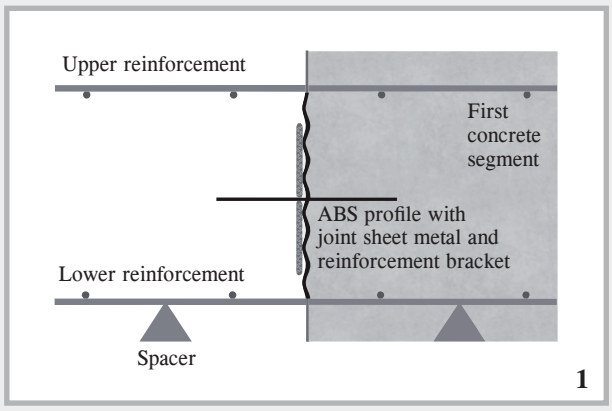


ABS stopend panels for wall and foundation shuttering

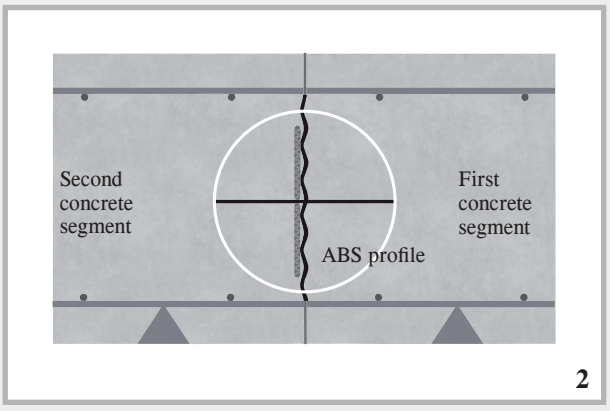
The ABS elements consist of perforated sheet metal with integrated coated joint sheet metal. The scope of delivery includes 2 fixing clips per element.

We require the installation dimension E, which is the measurement between the upper and lower reinforcement, from you.

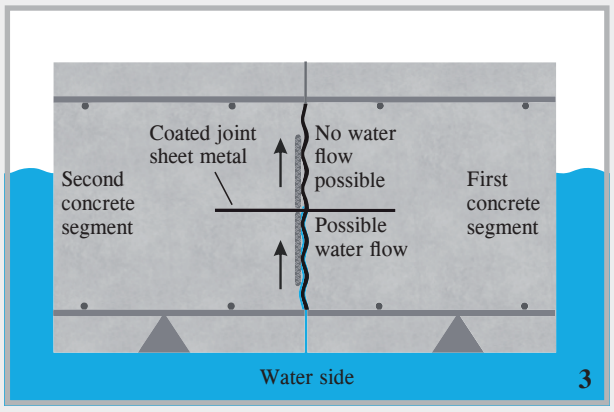
Function of ABS stopend panels



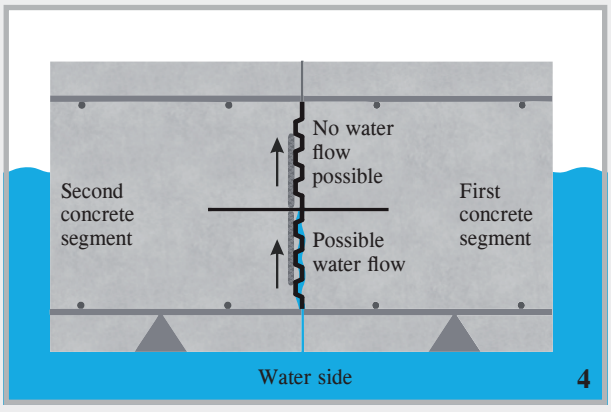
The ABS element serves as shuttering for the first concrete segment.



The rough or toothed version ensures a reliable connection of the second concrete segment.



The coated joint sheet metal eliminates the possibility of water inflow.



Same waterproofing principle, here in combination with toothed joint according to DIN 1045-1/EC2.

ABS deflection profiles

ABS deflection profiles for rough stopend panels

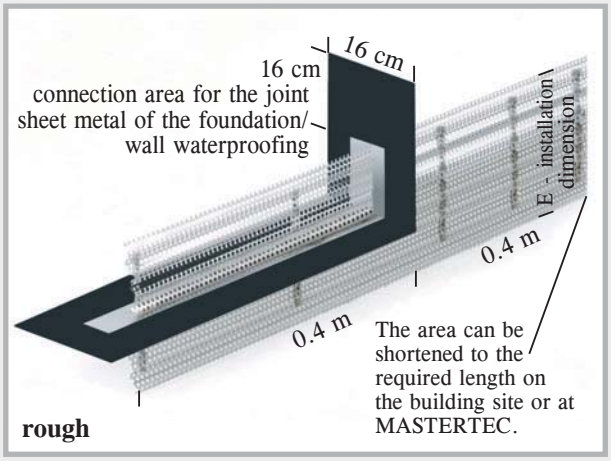
Art. No.	Presentation	Installation dimension E = width of perforated plate	Packaging	Weight kg per element	Price €
070330	**UL 130 rough**	Perforated plate 130 mm	1	1.70	**83.40**
070333	**UL 160 rough**	Perforated plate 160 mm	1	1.80	**84.90**
070336	**UL 200 rough**	Perforated plate 200 mm	1	1.90	**85.70**
070339	**UL 250 rough**	Perforated plate 250 mm	1	2.00	**86.90**
070342	**UL 300 rough**	Perforated plate 300 mm	1	2.40	**87.90**
070345	**UL 400 rough**	Perforated plate 400 mm	1	2.80	**89.40**
070347	**UL 500 rough**	Perforated plate 500 mm	1	3.30	**92.40**
070349	**UL 600 rough**	Perforated plate 600 mm	1	3.70	**96.40**
070351	**UL 700 rough**	Perforated plate 700 mm	1	4.20	**101.40**
070353	**UL 800 rough**	Perforated plate 800 mm	1	4.50	**107.40**
070355	**UL 900 rough**	Perforated plate 900 mm	1	5.00	**114.40**
070357	**UL 1000 rough**	Perforated plate 1000 mm	1	5.60	**122.40**

Further widths are available on request – intermediate sizes available

ABS deflection profiles for toothed stopend panels

Art. No.	Presentation	Installation dimension E = width of perforated plate	Packaging	Weight kg per element	Price €
070387	**UL 160 toothed**	Perforated plate 160 mm	1	1.60	**93.40**
070389	**UL 200 toothed**	Perforated plate 200 mm	1	1.80	**94.30**
070391	**UL 250 toothed**	Perforated plate 250 mm	1	1.90	**95.60**
070393	**UL 300 toothed**	Perforated plate 300 mm	1	2.30	**96.70**
070395	**UL 400 toothed**	Perforated plate 400 mm	1	2.60	**98.40**
070397	**UL 500 toothed**	Perforated plate 500 mm	1	3.00	**101.70**
070399	**UL 600 toothed**	Perforated plate 600 mm	1	3.50	**106.10**
070401	**UL 700 toothed**	Perforated plate 700 mm	1	4.00	**111.50**
070403	**UL 800 toothed**	Perforated plate 800 mm	1	4.30	**118.20**
070405	**UL 900 toothed**	Perforated plate 900 mm	1	4.60	**125.90**
070407	**UL 1000 toothed**	Perforated plate 1000 mm	1	5.00	**134.70**

Further widths are available on request – intermediate sizes available



rough

toothed

ABS deflection profiles

For a pressure water-tight transition from the foundation shuttering to the wall. We require the installation dimension E, which is the measurement between the reinforcement.

Accessories for coated joint sheet metals

Art. No.	Presentation	Packaging	Weight kg	Price €
070266 **070267** **070268**	**Soundproofing joint** **DSK 24/25** for wall thickness 24 + 25 cm **DSK 30** for wall thickness 30 cm **DSK 35/36.5** for wall thickness 35 + 36.5 cm Element length: 2500 mm 1 soundproofing joint consists of 2 elements *Technical details page 42*	Length: 2.50 m Length: 2.50 m Length: 2.50 m	2.40 kg/m 2.80 kg/m 3.20 kg/m	**60.00/m** **60.00/m** **64.00/m**
		Total price for 2 elements with 2.5 m length	DSK 24/25 DSK 30 DSK 35/36.5	**€150.00** **€150.00** **€160.00**
070269	**Sound joint tape DSF** internal construction joint tape A24 according to DIN 18541 with a special coating over 15 cm on one side, bitumen-compatible	Roll length 3 m	4.20 kg per roll	**22.00/m**
070230	**Joint sheet metal/joint tape connector** transition from joint sheet metal to joint tape *Technical details page 43*	1 set = 2 pcs.	2.50 per set	**45.90 per set**
070240	**MASTER adhesive tape for joint sheet metal** Adhesive tape for securing joints and crossing points, thickness 1.5 mm roll length 10 m, width 38 mm	16 rolls/carton	0.90 per roll	**19.50 per roll**
070270	**MASTER joint sheet metal angle 90°** side length 25 x 25 cm with fixing rail	1 pc.	0.60 per pc.	**15.90 per pc.**
070273	**MASTER joint sheet metal corner element FB** with fixing rail	1 pc.	0.70 per pc.	**16.20 per pc.**
070275	**Joint sheet metal VB angle 90°** side length 25 x 25 cm height 160 mm	1 pc.	0.45 per pc.	**10.90 per pc.**
070415	**Mounting bracket** for joint sheet metals, height up to 160 mm	150 pcs./sack	7.50 per sack	**0.71/pc.**
070421	**Mounting bracket** for joint sheet metals, height 161 – 205 mm	150 pcs./sack	8.60 per sack	**0.75/pc.**
070422	**Mounting bracket** for joint sheet metals, height 206 – 330 mm	150 pcs./sack	13.00 per sack	**0.83/pc.**
070410	**Fixing clip** for securing the element joints	55 pcs./bag	2.50 kg per bag	**0.43/pc.**

Black Galvanised

Small coils

Uncoated joint sheet metal

Art. No.	Presentation	Packaging	Rolls per pallet	Weight of roll/kg	**Price €**
070010	Joint sheet metal, black, 0.6 x 125 mm	Roll 30 m	60	18.00	**Available on request**
070020	Joint sheet metal, black, 0.6 x 150 mm	Roll 30 m	48	21.60	**Available on request**
070030	Joint sheet metal, black, 0.6 x 200 mm	Roll 30 m	36	28.80	**Available on request**
070040	Joint sheet metal, black, 0.6 x 250 mm	Roll 30 m	30	36.00	**Available on request**
070045	Joint sheet metal, black, 0.6 x 300 mm	Roll 30 m	24	43.20	**Available on request**
070170	Joint sheet metal, black, 1.0 x 200 mm	Roll 30 m	24	48.00	**Available on request**
070171	Joint sheet metal, black, 1.0 x 250 mm	Roll 30 m	18	60.00	**Available on request**
070172	Joint sheet metal, black, 1.0 x 300 mm	Roll 30 m	15	72.00	**Available on request**
070175	**Joint sheet metal, black, 1.5 x 250 mm**	**Roll 30 m** in accordance with the WU directive	**12**	**90.00**	**Available on request**
070176	**Joint sheet metal, black, 1.5 x 300 mm**	**Roll 30 m** in accordance with the WU directive	**10**	**108.00**	**Available on request**
070177	Joint sheet metal, black, 2.0 x 200 mm	Roll 30 m	12	96.00	**Available on request**
070178	**Joint sheet metal, black, 2.0 x 250 mm**	**Roll 30 m** in accordance with the WU directive	**10**	**120.00**	**Available on request**
070180	**Joint sheet metal, black, 2.0 x 300 mm**	**Roll 30 m** in accordance with the WU directive	**8**	**144.00**	**Available on request**
070090	Joint sheet metal, galvanised, 0.6 x 100 mm	Roll 30 m	60	14.40	**Available on request**
070100	Joint sheet metal, galvanised, 0.6 x 125 mm	Roll 30 m	60	18.00	**Available on request**
070110	Joint sheet metal, galvanised, 0.6 x 150 mm	Roll 30 m	48	21.60	**Available on request**
070120	Joint sheet metal, galvanised, 0.6 x 200 mm	Roll 30 m	36	28.80	**Available on request**
070130	Joint sheet metal, galvanised, 0.6 x 250 mm	Roll 30 m	30	36.00	**Available on request**
070135	Joint sheet metal, galvanised, 0.6 x 300 mm	Roll 30 m	24	43.20	**Available on request**
070173	Joint sheet metal, galvanised, 1.0 x 250 mm	Roll 30 m	18	60.00	**Available on request**
070181	Joint sheet metal, galvanised, 2.0 x 300 mm	Roll 30 m	8	144.00	**Available on request**

Black joint sheet metal with a min. thickness of 1.5 mm and a min. width of 250 mm complies with the WU directive for Water-Impermeable Concrete Buildings. All other types do not comply with this directive.

MASTER-Connect

Connector for joint sheet metal and joint tapes

MASTER-Connect connectors are manufactured in 2 versions. MASTER-Connect Type F for joint sheet metals and Type B for joint tapes.

- No boreholes
- Supplied ready for installation
- No welding
- Completely pressure water-tight connection

MASTER-Connect joint sheet metal

Technical details page 44

Art. No.	Presentation	Packaging	Weight kg	Price €
070196	**MASTER-Connect joint sheet metal F150** for joint sheet metal widths up to 150 mm	1	2.00 kg	**19.00**
070193	**MASTER-Connect joint sheet metal F250** for joint sheet metal widths up to 250 mm	1	3.00 kg	**21.60**
070194	**MASTER-Connect joint sheet metal F330** for joint sheet metal widths up to 330 mm	1	4.00 kg	**26.00**

Resistance:

- Oil and petrol
- Diluted acids and alkalis
- Liquid manure and slurry
- Fermentation mash
- Radon and methane gas

MASTER-Connect joint tape

Technical details page 44

Art. No.	Presentation	Packaging	Weight kg	Price €
070605	**MASTER-Connect joint tape B150** for joint tape widths up to 150 mm	1	2.00 kg	**23.60**
070610	**MASTER-Connect joint tape B250** for joint tape widths up to 250 mm	1	3.00 kg	**28.60**
070620	**MASTER-Connect joint tape B330** for joint tape widths up to 330 mm	1	4.00 kg	**35.90**

Resistance:

- Diluted acids and alkalis
- Liquid manure and slurry
- Fermentation mash

Product film on www.mastertec.eu YouTube INSTALLATION FILM

MASTER-MultiFlex

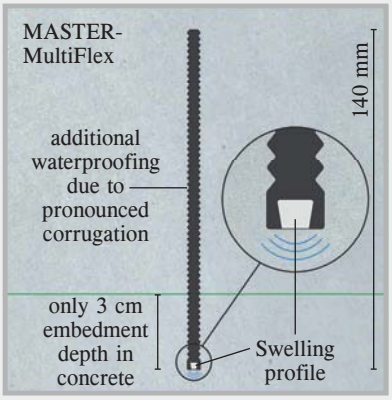
The active joint tape for waterproofing of construction joints

Product description

MASTER-MultiFlex is a PVC joint tape with a swelling profile on one side. MASTER-MultiFlex offers double protection – surface-wide sealing of the joint tape and the swelling profile which reliably stops the inflow of water.

Function + technical data

Material:	Soft PVC, free of cadmium, chrome and lead
Swelling profile:	highly swellable non-sagging TPE
Thermal stability:	-20°C to + 70°C
Resistance:	highly resistant to many acids and alkalis
Long-term behaviour:	outstanding ageing resistance
Connection:	weldable or with MASTER-Connect

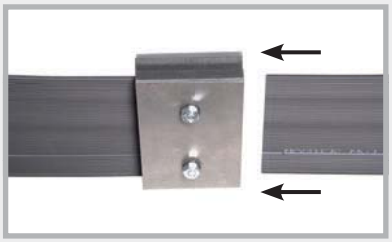


Installation

Fastening

MASTER-MultiFlex on the reinforcement

Connection with MASTER-Connect



The fastest, most reliable and cost-effective connection. Push the tape into the Connect on the left and right and tighten the screws.

Welding

Weldable without removing the ribbing. Make sure when welding that the ribbed profiles at the two ends fit into one another.

Request our data sheet with installation instructions.

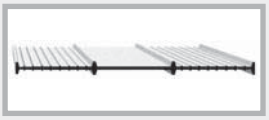
Product range

Art. No.	Presentation	Packaging	Weight kg	**Price €/m**
080643	**MASTER-MultiFlex construction joint tape (MMF 140)** with additional swelling profile, width 140 mm Roll length 25 m, including 50 mounting brackets	1	29.00 kg per carton	**9.60/m**
070605	**Fastest and most reliable bonding of joints with MASTER-Connect joint tape B150** for joint tape widths up to 150 mm	1	2.00 kg	**23.60/pc.**

Joint tape, PVC, factory standard

Construction joint tape, internal

Type	Tape width mm	Roll length m	Weight kg/roll	PVC Factory standard	Price €/m
A 19	190	25	24.0	**080500**	**4.30**
A 24	240	25	30.0	**080510**	**5.80**
A 32	320	25	45.0	**080520**	**8.20**

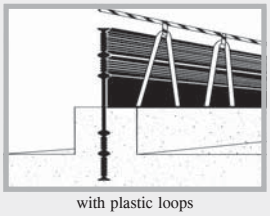


Construction joint tape, external

AA 19	190	25	27.0	**080530**	**6.00**
AA 24	240	25	42.0	**080540**	**7.50**
AA 32	320	25	67.0	**080550**	**10.70**

Construction joint tape, internal, reinforced with plastic loops

SFA 100	100	50	35.0	**080590**	**4.00**
SFA 150	150	25	23.0	**080600**	**5.80**
SFA 190	190	25	29.0	**080610**	**8.10**
SFA 240	240	25	39.0	**080620**	**9.10**
SFA 320	320	25	67.0	**080630**	**16.60**



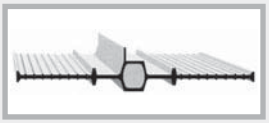
with plastic loops

Construction joint tape, internal, made of rigid PVC

P 150	150	25	26.0	**080640**	**3.50**

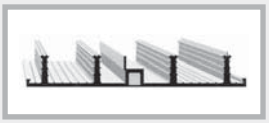
Expansion joint tape, internal

D 19	190	25	34.0	**080650**	**5.70**
D 24	240	25	50.0	**080660**	**7.40**
D 32	320	25	62.0	**080670**	**11.30**



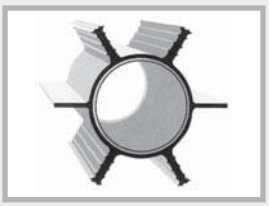
Expansion joint tape, external

DA 19	190	25	32.0	**080680**	**7.30**
DA 24	240	25	49.0	**080690**	**8.60**
DA 32	320	25	68.0	**080700**	**12.10**



Crack inducer tubes

Art. No.	Type	Diameter / mm	Pipe length mm	Weight kg/pipe	Price €/m
080710	Q 1	88 wall thickness 24 – 35 cm	2500	10.0 kg	**17.80**
080712	Q 1	88	3000	11.0 kg	**17.80**
080714	Q 1	88	3500	14.0 kg	**17.80**
080722	Q 3	60 wall thickness 17 – 24 cm	2500	6.0 kg	**15.10**
080724	Q 3	60 + cavity walls	3000	8.0 kg	**15.10**
080726	Q 3	60	3500	10.0 kg	**15.10**

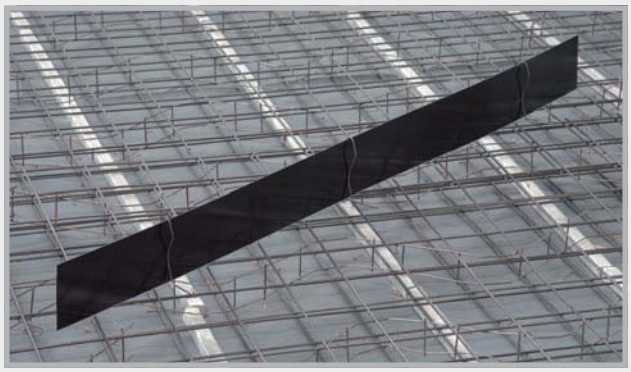


Joint tape clamp

Art. No.		Pcs. per pack	Weight/kg	Price/€
070510	**Joint tape clamp** 3 pcs. per metre and side	200 pcs./cart.	1.50 kg/carton	**21.50/100 pcs.**

VB joint sheet metal
High-pressure metal sheets

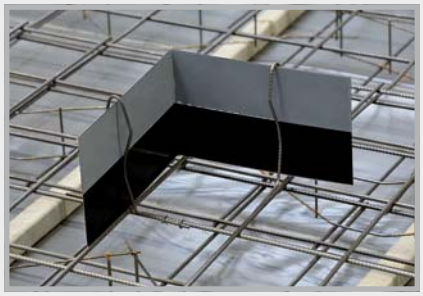
Polymer-coated joint sheet metals for waterproofing of construction joints.



Packaging in strips and rolls, with coating on one or both sides.

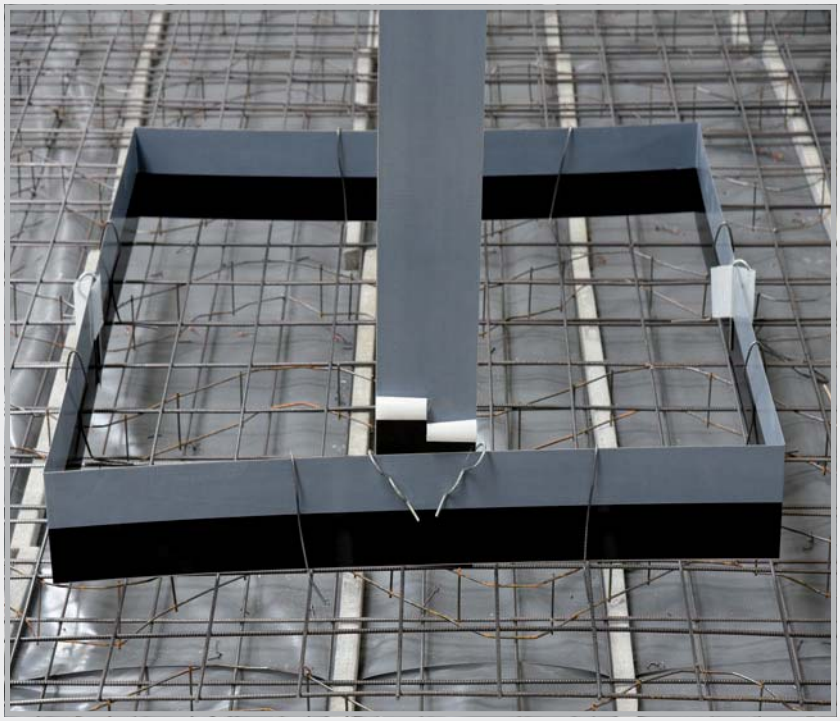
Installation of VB joint sheet metal

We deliver strips or rolls, complete with installation accessories.



Remove the foil on the underside and start (for example) in the corner. The sheet metal can be bent on the building site.

Also remove the foil on the underside of the connection plate and prepare for the 6 cm overlap.



Secure embedment in concrete, max. 50% of sheet metal profile width. The foil on the upper side is removed prior to concreting of the wall. When using sheet metal plates with a coating on one side, the coating must always face the water side.

YouTube
INSTALLATION FILM

Detailed information:

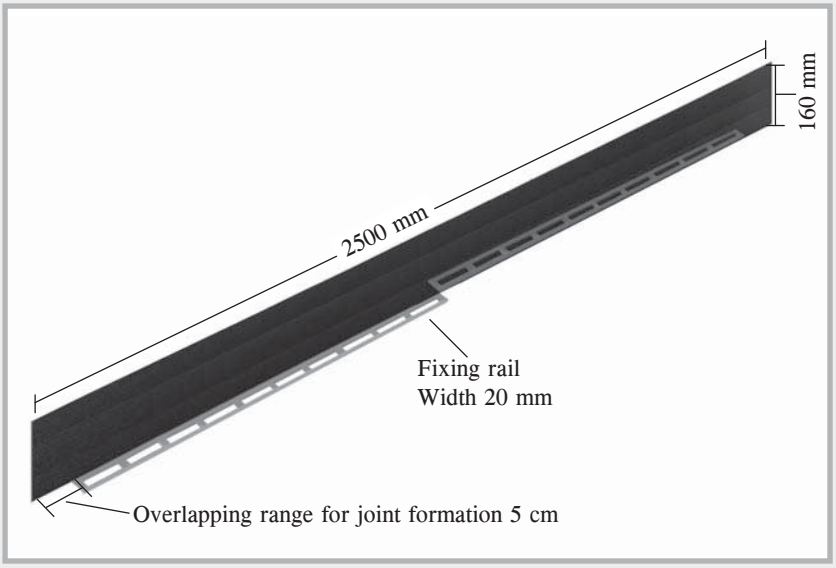
Request our technical data sheet or scan the QR code!

MASTER joint sheet metal

Product description

- MASTER joint sheet metal is made of galvanised sheet steel which is fully coated on both sides with a special coating. The coating forms a water-tight bond with the fresh concrete.

- Element length 2500 mm
  Width 160 mm
  Total thickness 2.1 mm



Function

- The special coating ensures a very firm bond between concrete and joint sheet metal
- Tested for resistance to pressurised and non-pressurised water
- Environmentally friendly
- For in-situ concrete and prefabricated construction
- Suitable for zones with frequently varying water levels
- For waterproofing of foundation/wall, foundation/foundation and wall/wall construction joints.

Scope of supply

- MASTER joint sheet metal is supplied complete with fixing clips in stable wooden crates. Thanks to the fixing rail, no further accessories are required for installation.

YouTube
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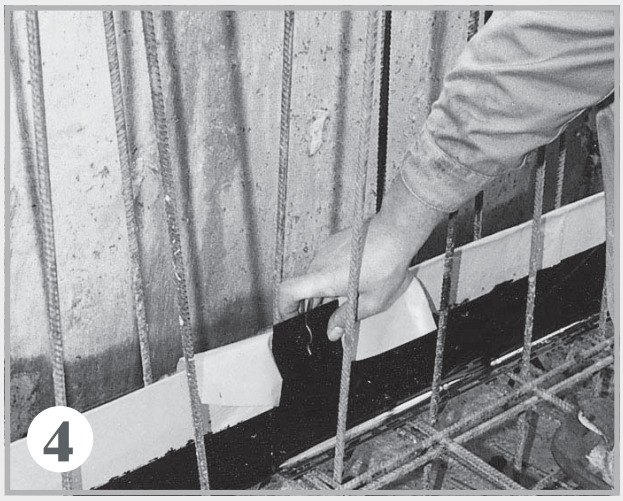
Installation of MASTER joint sheet metal

Remove the lower protective film

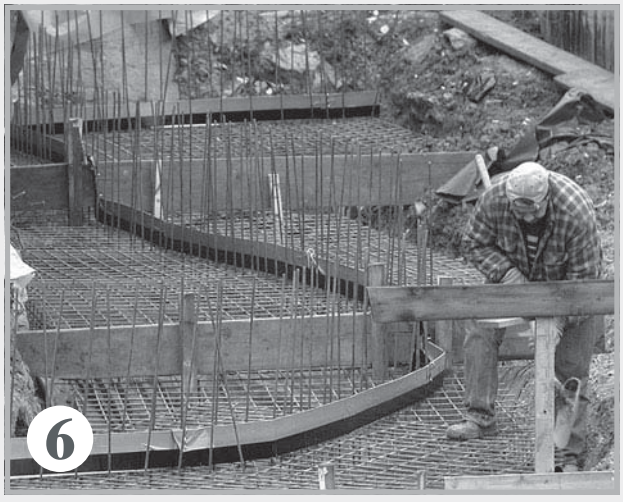
Place element on top of upper reinforcement layer

Overlap MASTER joint sheet metal by 5 cm and press together



Secure the joint with a fixing clip

Fix the element's support rail using a tie wire.
Simply bend the element in the corner area

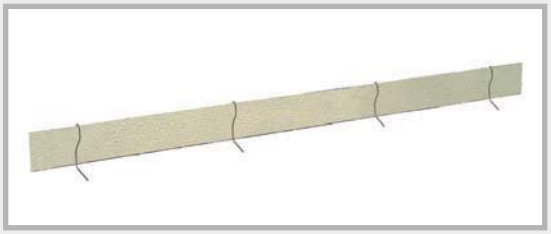


The MASTER joint sheet metal elements can be bent in any way.
Waterproofing of staggered levels is also possible without any problems.

In order to prevent the joint sheet metal from being contaminated, do not remove the upper film until after concreting of the foundation.

Joint sheet metal MB Overlap

Mineral-coated joint sheet metals for waterproofing of construction joints.

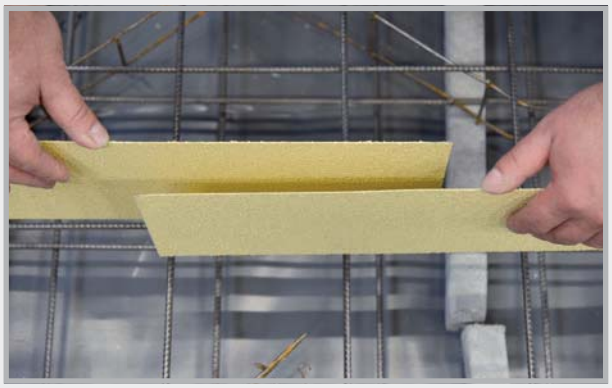


Presentation: 160 and 120 mm wide strips with full mineral coating on both sides.

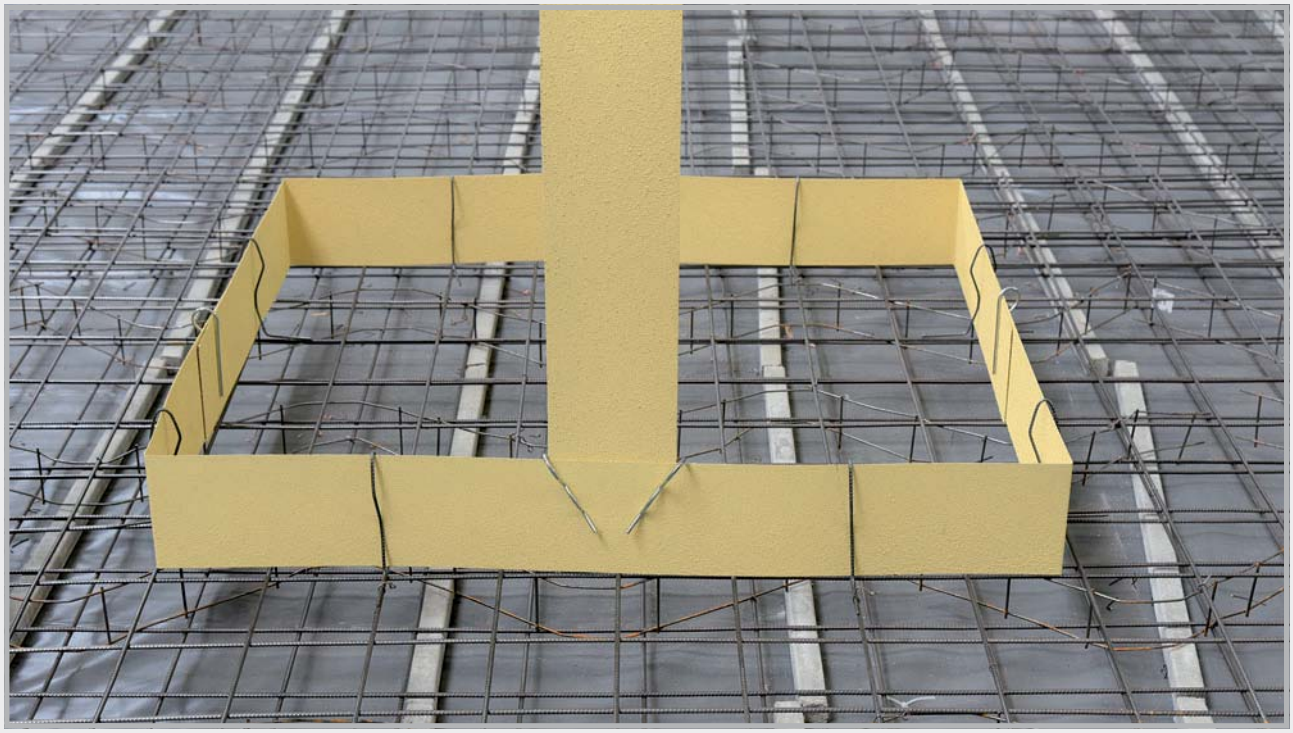
Installation of MB joint sheet metal

The metal waterproofing profiles are supplied complete with installation accessories.

The coating is fully insensitive. The metal sheets can be bent by hand.



20 cm overlap in area of joint.
No adhesive joints required.



Joint sheet metal MB before placement of concrete. 3 cm embedment depth in the concrete is sufficient to achieve a pressure-tight seal.

YouTube
INSTALLATION FILM

Detailed information:

Request our technical data sheet or scan the QR code!

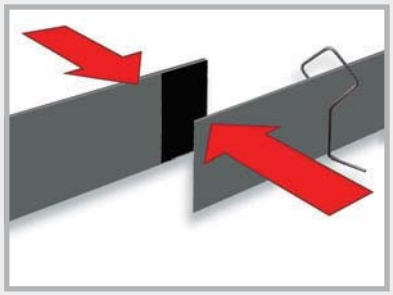
Joint sheet metal AKTIV

Bentonite-coated joint sheet metal for waterproofing of construction joints.

Presentation

Joint sheet metal, fully coated on one side with bentonite.
Delivered complete with installation accessories.

Installation of joint sheet metal AKTIV

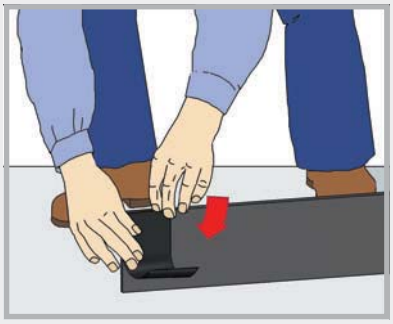


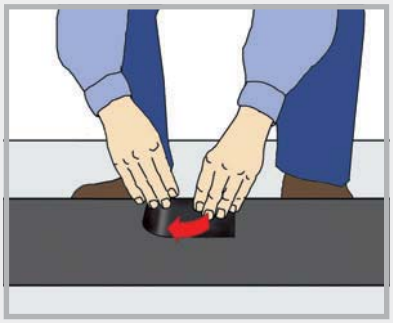
Tear the protective film off the ends of the two elements to be bonded and press them together.

Corners are formed by simply bending the elements.

Cut the element to the required length.

Cut off strip of adhesive tape.





Apply the adhesive tape in the area where two elements are to be joined. The adhesive tape must be applied on both elements.

Joint sheet metal AKTIV installation complete.
Coating always faces the water side.
Embedment depth of 3.5 cm in the concrete.

Detailed information:
Request our technical data sheet!

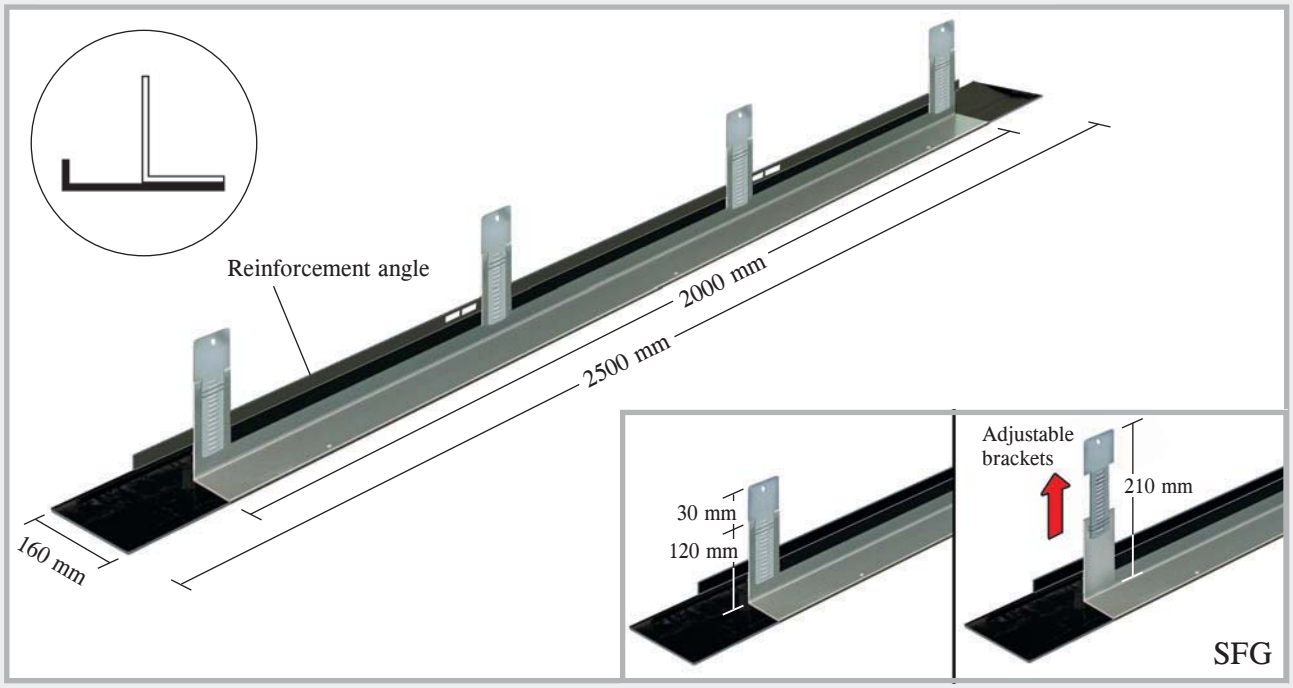
Crack inducing profiles

MASTER joint sheet metal SFG adjustable

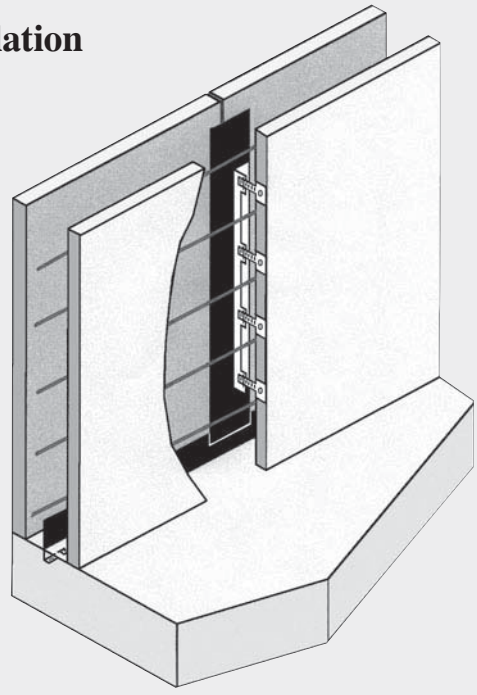
(prefabricated crack inducing element, straight) for straight butt joints

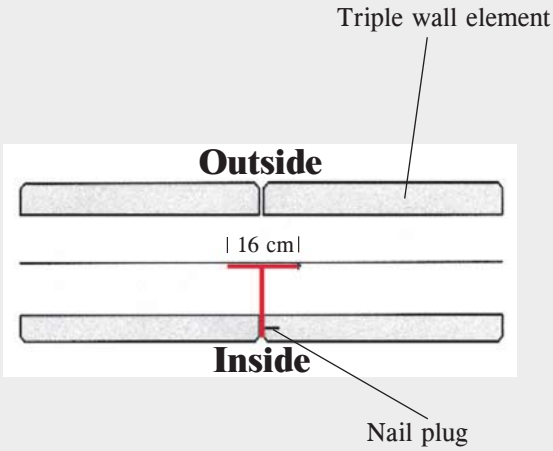
Product description

- The profile consists of a fully coated joint sheet metal, which forms a watertight bond with the fresh concrete, and adjustable brackets.



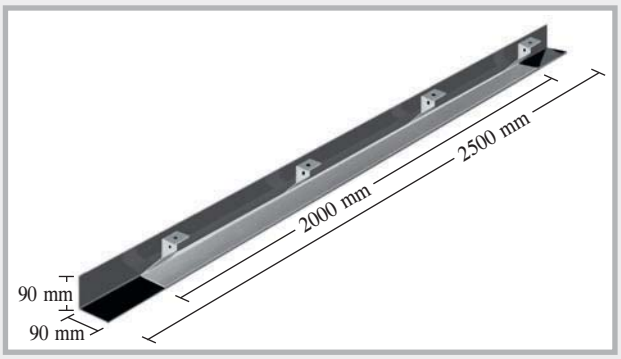
Installation



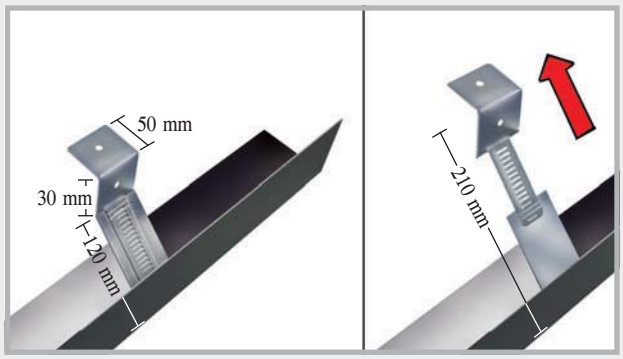


The elements supplied are completely prefabricated and are fixed to the internal formwork of the triple wall using the nail plugs provided. The lower part of the elements is bonded to the waterproofing element in the foundation area.

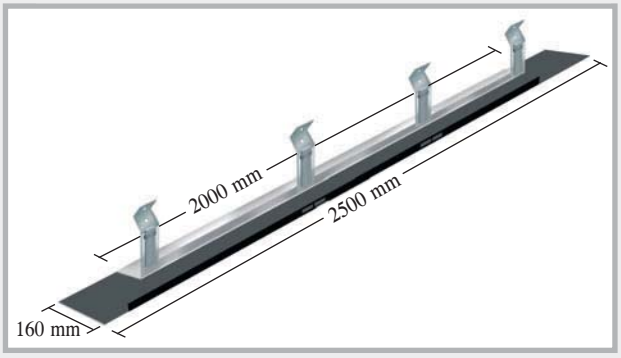
Crack inducing elements for the corner area SFE adjustable FE adjustable



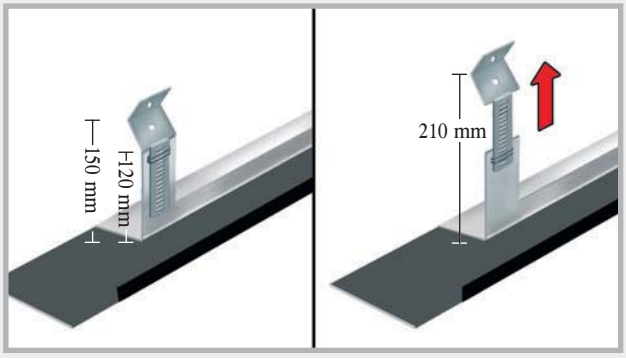
SFE profile



Adjustable brackets

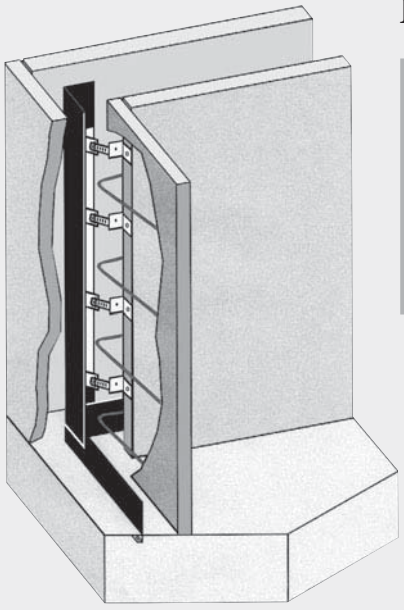


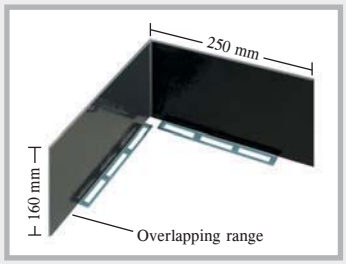
FE profile



Adjustable brackets

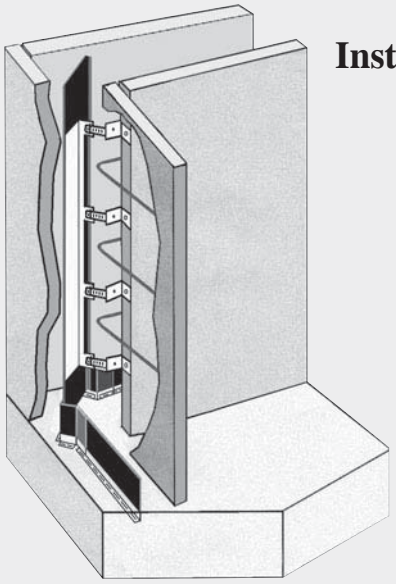
Installation of SFE



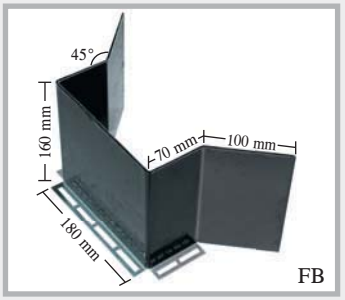


MASTER joint sheet metal angle 90° for connection of SFE profile

The adjustable brackets always enable contact with the waterproofing elements in the foundation.



Installation of FE

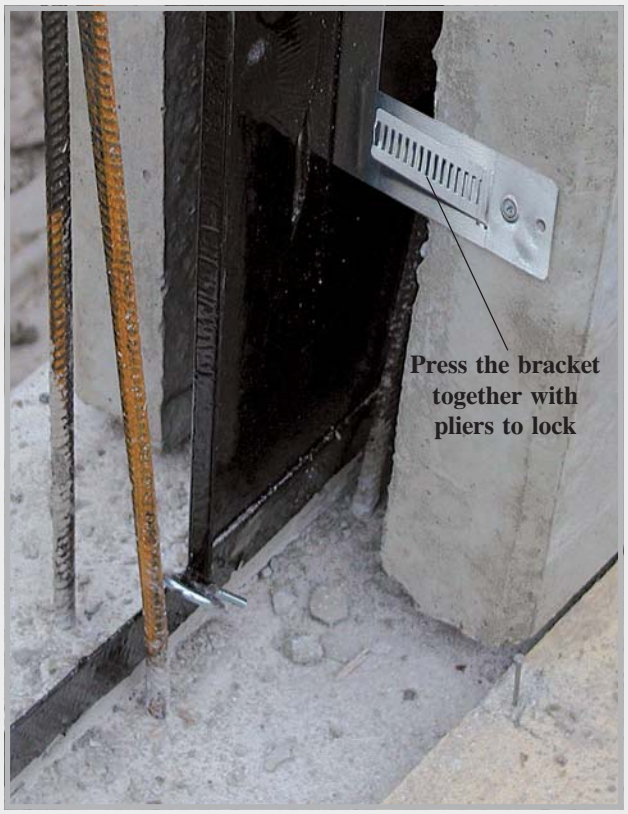


MASTER joint sheet metal corner element FB for connection of FE profile

At the construction site

The cavity wall is positioned with MASTER joint sheet metal acting as the foundation/wall waterproofing element.

Adjustable fastening



Thanks to the adjustable brackets, the wall profiles can always be bonded to the foundation profile.

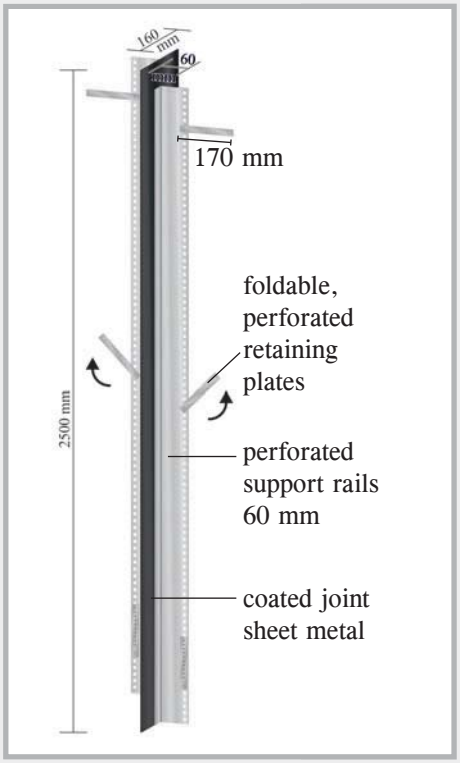
Wall/wall waterproofing is applied to each element.

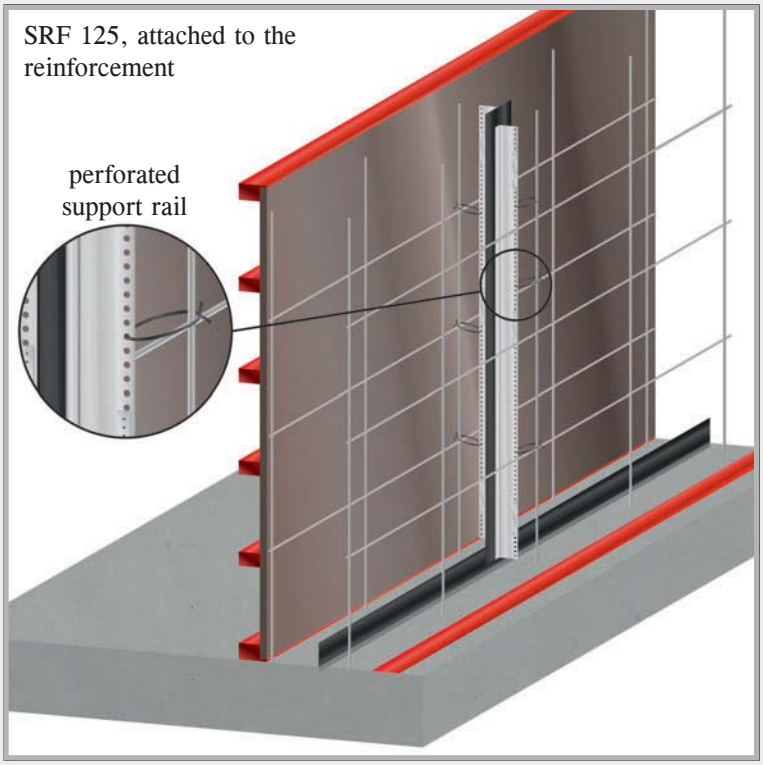
Crack inducing profile SRF 125 Multi

Product description

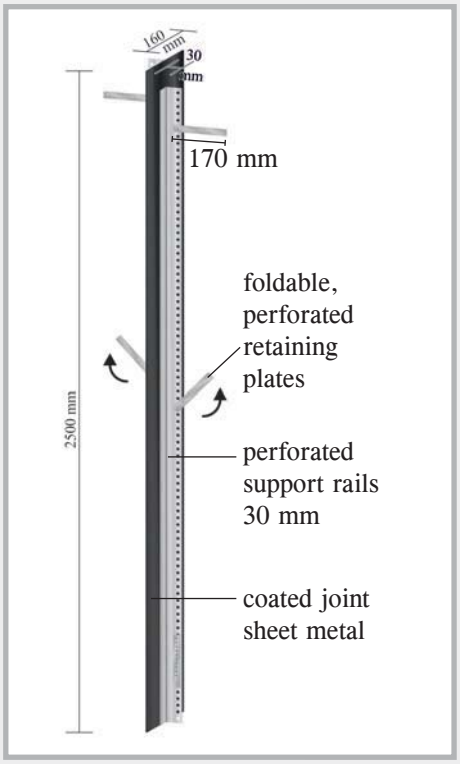
The SRF 125 Multi profile consists of a coated joint sheet metal element with perforated support rails attached to both sides and additional retaining plates. Depending on the requirements, the profile is fastened via the support rails or the perforated foldable retaining plates.

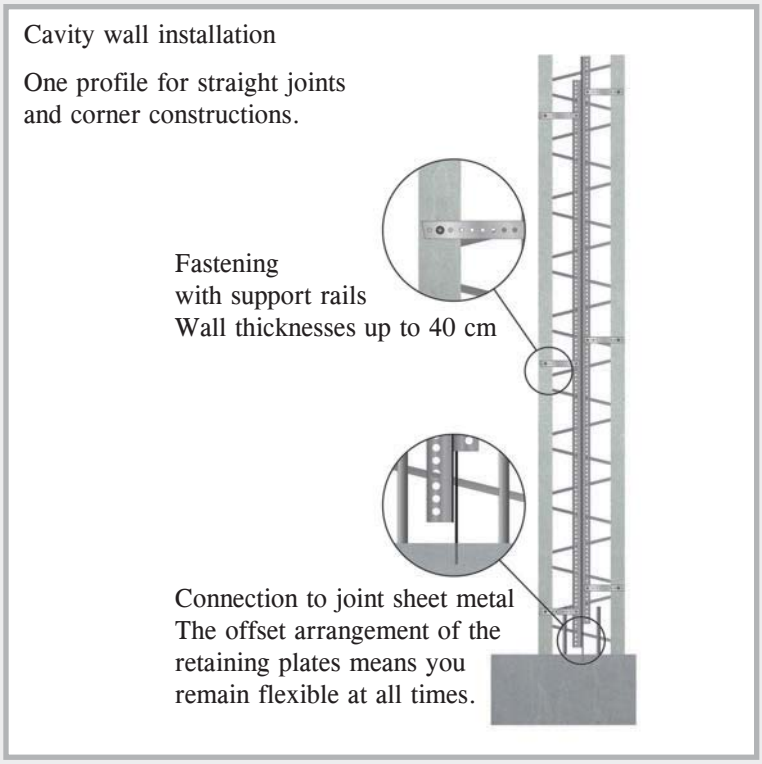
Type SRF 125 Multi in-situ concrete





Type SRF 125 Multi cavity wall

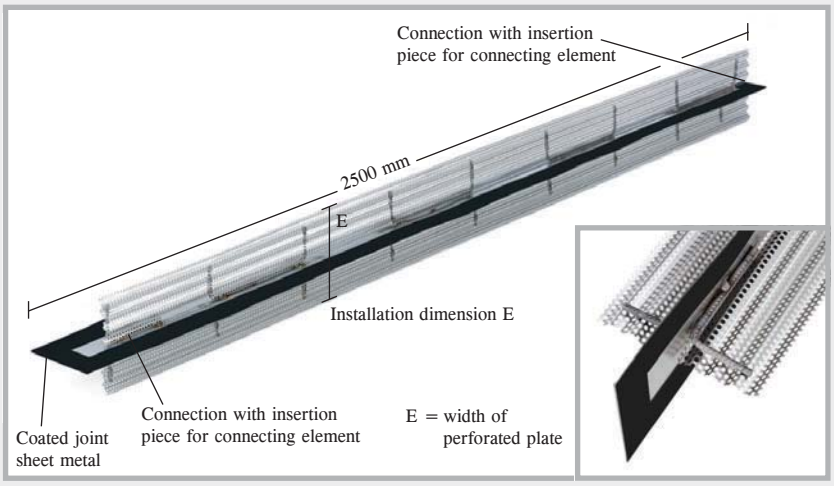




Profiles for in-situ concrete
Stopend panel joint sheet metal ABS

Product description

- The ABS profiles consist of a joint sheet metal coated with a special coating to which a perforated plate has been welded on both sides. The coated joint sheet metal forms a watertight bond with the fresh concrete. The ABS profiles are installed in horizontal and vertical construction joints of foundations or walls.



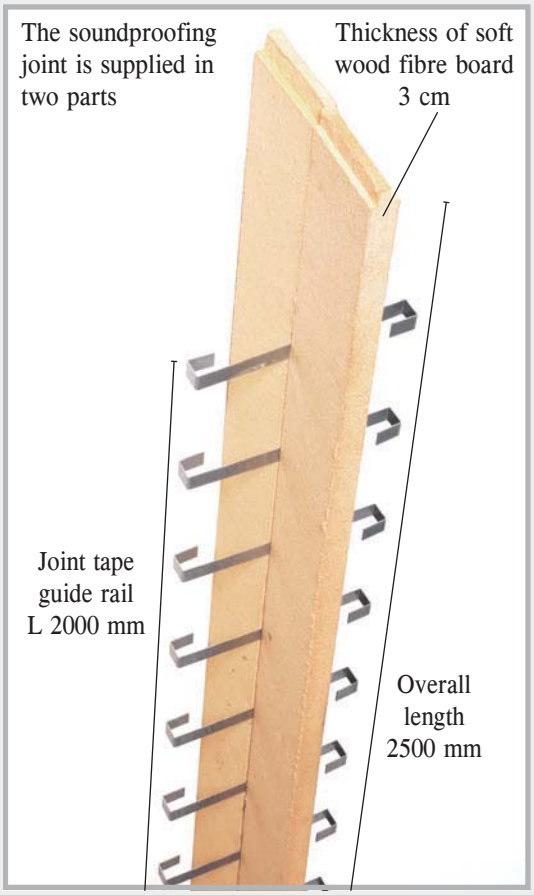
Function and installation

- Place the ABS elements between the reinforcement layers and fix them with tie wire
- Fit the individual elements into each other and glue the panels together
- With greater constructional element thicknesses/heights also provide shuttering.
- The elements remain in the concrete, i.e. no time-consuming formwork or stripping required
- Remove the foil before concreting

In your order, please specify the width within the reinforcement (please refer to the list of products).

Soundproofing joint DSK

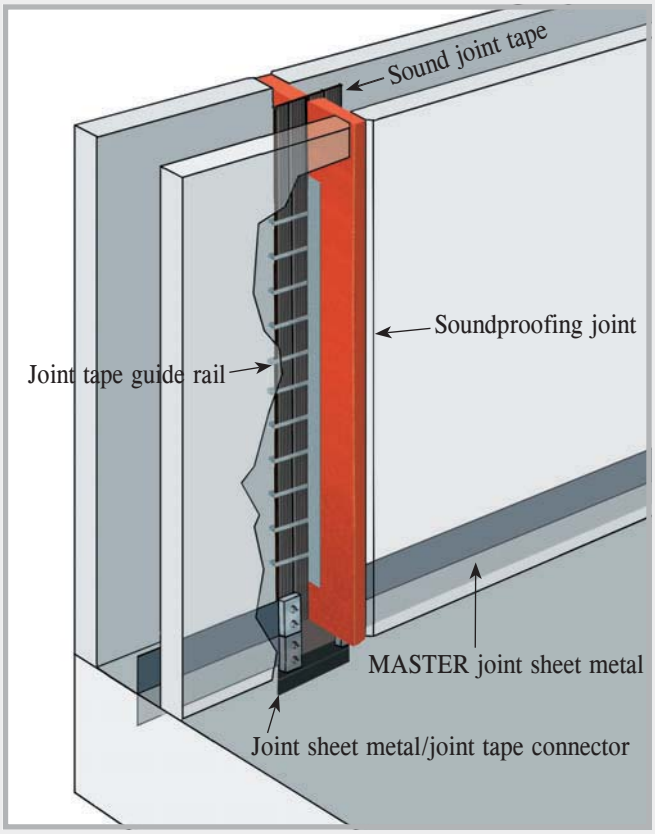
Product description



Soundproofing joint with sound joint tape

Installation and function

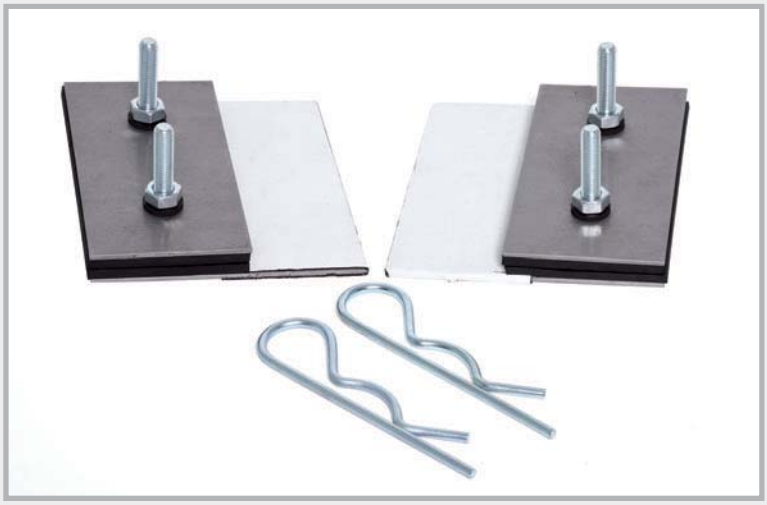
- In the course of concreting of the foundation, the coated area of the sound joint tape DSF is encased in the concrete
- Remove the foil before concreting
- In the foundation area, the sound joint tape is connected to the foundation/wall waterproofing element using the joint sheet metal/joint tape connector
- The soundproofing joint is fastened to the front face of the wall elements.
- The sound joint tape is fed upwards through the joint tape guide rail
- Secure joint tape with joint tape clamps



Joint sheet metal/joint tape connector

Product description

The joint sheet metal/joint tape connector establishes a reliable pressure water-tight connection between PVC joint tapes and coated joint sheet metals.
A joint sheet metal/joint tape connector consists of 2 connecting elements.



Installation

The ribs must be removed from the joint tape in the areas where the connectors are mounted.

Mark the positions of the bore holes.

Drill the holes.

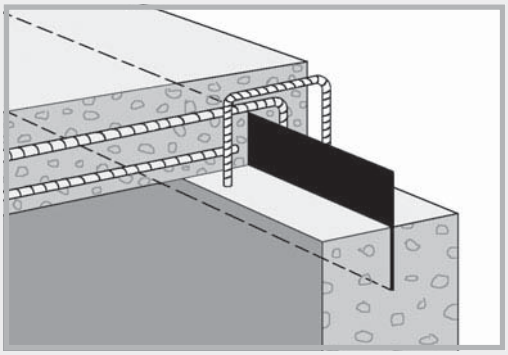
Assemble the connectors and joint tape.

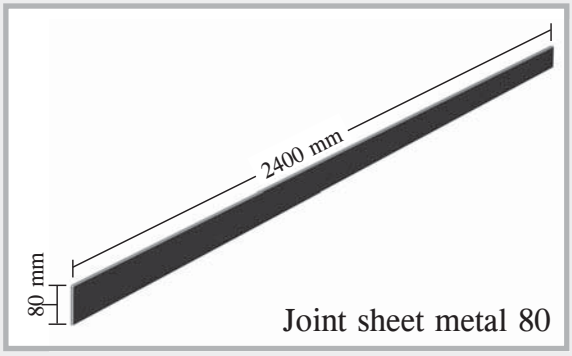
Tighten the screws.

Pull off the foil, affix the connection plates and secure with the fixing clips.

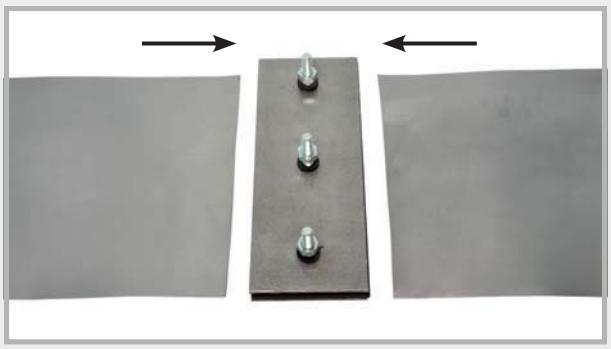
Joint sheet metal 80

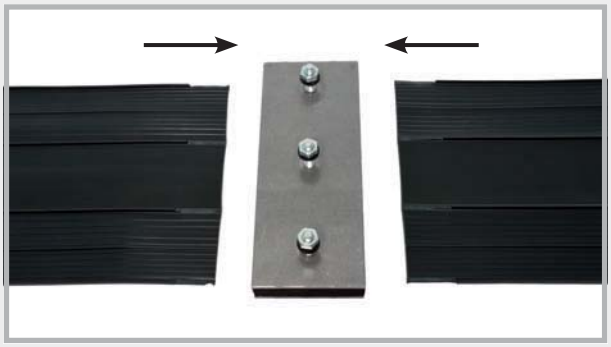
Joint sheet metal fully coated on both sides for wall/slab connection.
Length: 2400 mm; width: 80 mm
Pack: wooden crate with 50 elements + 55 fixing clips





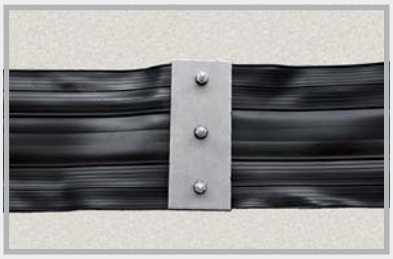
MASTER-Connect technology





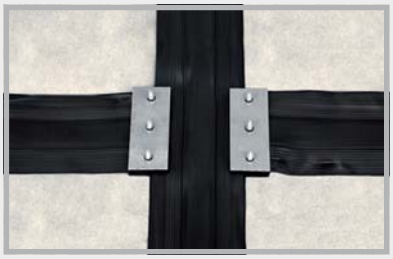
1. The connectors are supplied preassembled.
2. The joint sheet metal elements or joint tapes are pushed in between the seals on the left and right.
3. The ribs are removed at the insertion section of the joint tapes to ensure this section is as smooth as possible.
4. Following insertion the screws are tightened to 8 Nm.
5. The connection is completely pressure water-tight.

Installation options for joint tape and joint sheet metal

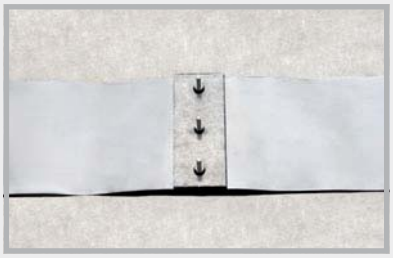


Butt joint

T piece

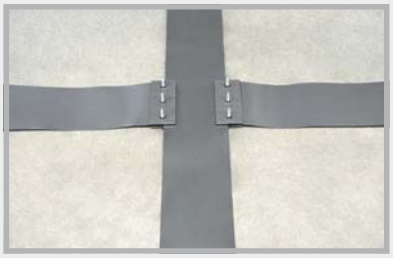


Junction



Butt joint

T piece



Junction

YouTube
INSTALLATION FILM

Detailed information:

Request our current brochure or scan the QR code!

INJECTION HOSES CONSTRUCTION CHEMISTRY

Injection hoses

MASTERTUBE Yellow

MASTERTUBE injection hose

pages 46 – 52

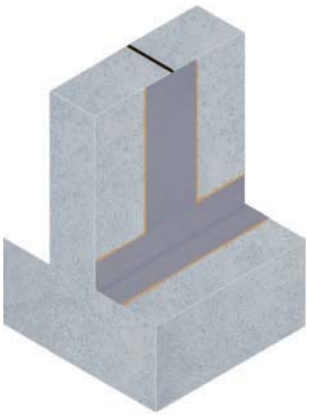
PROTECT resin system + injection packers

pages 53 – 55

BIO with

LIDOL concrete release agents
in MULTI and BIO quality

pages 56 – 58



MASTER-TAPE film gluing system

pages 59 – 60

MASTERTUBE Injection hose systems

Injection hoses

Art. No.	Presentation	Packaging	Weight kg	Price €
030400	**MASTERTUBE "YELLOW"** round, size 6/12 mm PVC injection hose	100 m per roll	11.2 kg per roll	**5.35/m**
030050	**MASTERTUBE injection hose** round, size 5/10 mm, red/yellow with woven jacket	100 m per roll	10.0 kg per roll	**5.95/m**

Art. 030400

Art. 030050

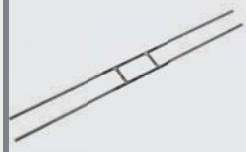
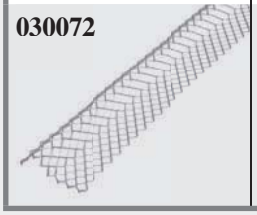
- Very high water pressure test
- For injection with polyurethane resin
- For multiple injections with acrylate and cement suspension in preparation
- Extended test using polyurethane resin, acrylate and cement suspension for injection hose sections up to 15 m

- Very high water pressure test
- For injection with polyurethane resin
- For multiple injection with acrylate
- Hose sections up to 15 m with polyurethane resin.

MASTERTUBE installation set

Art. No.	Presentation	Packaging	Weight kg	Price €
030052	**MASTERTUBE installation set** 40 m MASTERTUBE injection hose 20 fastening packers 200 plastic fastening clips type A 100 metal clips with nails 10 hose connectors 1 roll of filament tape	Set in bag	8.4 kg per set	**613.00 per set**

Injection hose and accessories

Art. No.	Presentation	Packaging	Weight kg	Price €
030060	**Fastening packer** incl. nipple for fastening the injection hose to the formwork Colour: black 10 red plugs, 10 white plugs for resin injection	20 pcs./bag 25 bags per carton	0.50 kg per bag	**3.96** **per pc.**
030362	**Plastic foam for fastening packer** diameter 35 mm, thickness 20 mm self-adhesive	20 pcs./bag 10 pcs. white 10 pcs. anthracite	0.05 kg per bag	**0.52** **per pc.**
030065 	**Fixing spider** for fixing the fastening packer to the reinforcement	1 pc.	0.11 kg per pc.	**7.20** **per pc.**
030075	**Plastic fastening clip type A** for pressing into the fresh concrete or into Ø 8 mm bore holes, fastened at 15 cm intervals	100 pcs./bag 25 bags/sack	0.29 kg per bag	**20.50 per** **100 pcs.**
030070	**Plastic fastening clip type B** for pressing into the fresh concrete or into Ø 8 mm bore holes, fastened at 15 cm intervals	100 pcs./bag 25 bags/sack	0.29 kg per bag	**17.90 per** **100 pcs.**
030080	**Metal clip with pre-fitted nail** for all common nailguns for firing and nailing distance between clips: 15 cm	100 pcs. per carton	1.80 kg per carton	**0.60** **per pc.**
030081	**Metal clip without nail**	100 pcs. per carton	1.40 kg per carton	**0.29** **per pc.**
030083	**Nail plug 5 x 40 mm** borehole Ø 5 mm	200 pcs. per carton	0.60 kg per carton	**8.45 per** **100 pcs.**
030072 	**Fastening grid for MASTERTUBE** Length: 1 m	25 m per carton	1.80 kg per carton	**1.95/m**

Injection hose and accessories

Art. No.	Presentation	Packaging	Weight kg	Price €
030100	**Hose connector** for hose extension and connection of oddments	10 pcs./bag	0.04 kg per bag	**1.75 per pc.**
030102 **030104**	**Ventilation hose,** fabric hose blue-transparent round, size: 5/11 mm red-transparent round, size: 5/11 mm	Roll 50 m	per roll 4.85 kg 4.85 kg	 **2.45/m** **2.45/m**
030112 **030114**	**Injection end pieces** incl. sealing plug and hose connector blue-transparent round 5/11 mm red-transparent round 5/11 mm	Length: 50 cm 10 pcs. 10 pcs.	 0,50 kg/pack 0,50 kg/pack	 **5.55/pc.** **5.55/pc.**
030096	**Sealing plugs** for the YELLOW and MASTERTUBE injection hoses	20 pcs./bag	0.006 kg per bag	**0.50 per pc.**
030101	**Hose bushing** for gluing with superglue	20 pcs./bag	0.02 kg per bag	**0.50**
030125	**Superglue** bottle 10 ml	10 pcs./bag	0.21 kg per bag	**4.95 per pc.**
030350	**Storage box for ventilation hose** Nail on the formwork support Clip on the storage box with inlets open Introduce the ventilation hoses on the left and right Ready for concrete placement	10 pcs./ bag	0.55 kg per bag	**4.60 per pc.**
030120	**Shrink-on sleeve,** length 10 cm for securing connection points	20 pcs./bag	0.04 kg per bag	**2.45 per pc.**
030140	**Hand-lever press 500 ccm** for resin injection	1 pc.	1.00 kg per pc.	**23.90 per pc.**

Injection hose and accessories

Art. No.	Presentation	Packaging	Weight kg	Price €
030150	**Reinforced hose L 300 mm** incl. gripping head	1 pc.	0.09 kg per pc.	**12.90 per pc.**
030160	**Gripping head**	1 pc.	0.03 kg per pc.	**5.60 per pc.**
030165	**Manometer 400 bar with T piece** incl. connecting tube and adapter	1 pc.	0.26 kg per pc.	**69.00 per pc.**
030155	**Replacement seal for hand-lever press**	1 pc.	0.01 kg	**1.75 per pc.**
030130	**Injection packer incl. nipple** for injection via ventilation hose or injection hose	10 pcs./bag	0.16 kg per bag	**4.15 per pc.**
030135	**Steel hose packer incl. nipple** for injection via ventilation hose or injection hose	10 pcs./bag	0.19 kg per bag	**4.15 per pc.**
030170	**Measuring beaker 3 l**	1 pc.	0.26 kg per pc.	**20.50 per pc.**
030090	**Filament tape** roll width: 25 mm, roll length: 50 m to safeguard the hose ends	36 rolls per carton	0.17 kg per roll	**4.90 per roll**
030355	**Connection thread for fastening packer** 35 mm long, the connection thread is screwed into the fastening packer to facilitate mineral injection.	10 pcs./bag	0.08 kg per bag	**1.70 per pc.**
030360	**Attachment for connection thread** The attachment is screwed onto the connection thread. The injection pump can be connected with a sliding coupling or spring lock.	10 pcs./bag	0.2 kg per bag	**5.20 per pc.**
030063	**Nipple, extra**	100 pcs./bag	0.46 kg per bag	**0.75 per pc.**

MASTERTUBE
Injection hose systems

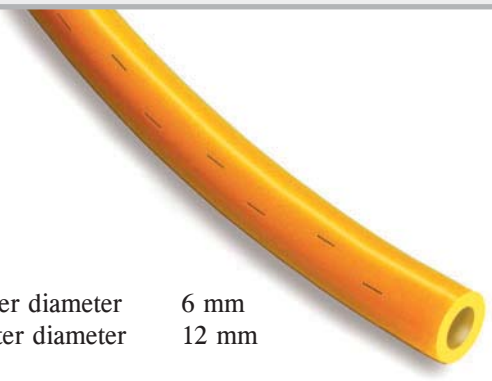
The MASTERTUBE "YELLOW" and MASTERTUBE injection hoses make construction joints watertight.
The form and structure of the hose profiles ensure a particularly secure and even filling of shrinkage gaps and damaged spots.

	MASTERTUBE YELLOW	MASTERTUBE Injection hose
Very high water pressure tests	50 m water column	50 m water column
For injection with polyurethane resin	tested	tested
For multiple injection with acrylate	In preparation	tested
For multiple injection with cement suspension	In preparation	–
Injection hose sections of 15 m with		
polyurethane resin	tested	tested
acrylate	tested	–
cement suspension	tested	–
Even discharge of injection material	tested	tested
No sintering during concreting	tested	tested
Suitable for zones with frequently varying water levels	tested	tested
All-weather installation	-10°C to + 60°C	-10°C to + 60°C
Extremely straightforward installation	Used on building sites for 10 years	Used on building sites for 19 years
Accessories	Fully-fledged system	Fully-fledged system

Two systems with 100% reliability

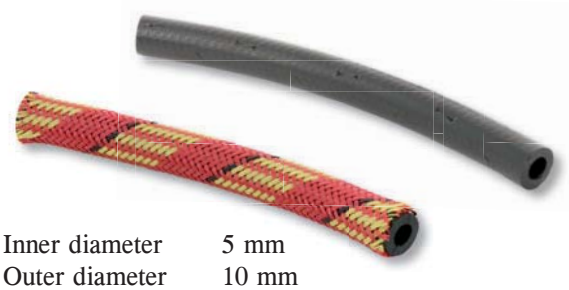
Roll length 100 m

Roll length 100 m



Inner diameter 6 mm
Outer diameter 12 mm

PVC hose with injection slots which ensure an even discharge of the injection media.



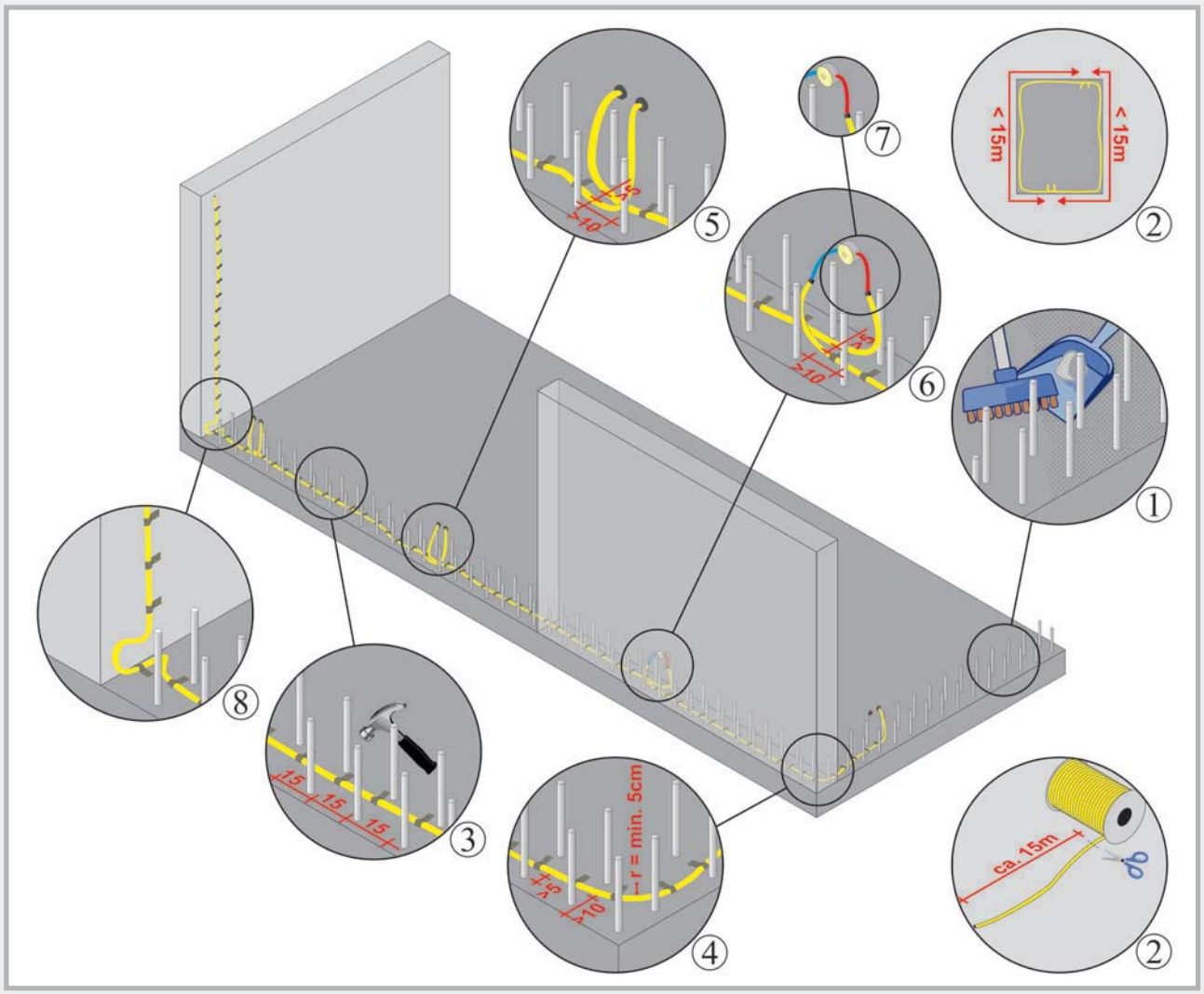
Inner diameter 5 mm
Outer diameter 10 mm

1. Perforated inner plastic tube
2. The braided layer is made of polyethylene and protects the hose from mechanical stress.

Installation and injection

1. Clean the surface on which the injection hose is routed to remove loose dirt. Professionally smooth out excessive unevenness, e.g. cavities, ensuring friction-locked adhesion.
2. Plan injection sections, maximum length incl. injection end pieces ≤ 15 m, shorten hose using a suitable cutting tool. When using the MASTERTUBE injection hose, mask the hose to be shortened with filament tape to prevent the braided fabric from coming loose. The hose is then cut at the centre of the filament tape.
3. It can then be fastened with clips inserted into the fresh concrete. The hose is clipped on underneath once the concrete has cured. Alternatively it can be fastened to a solid surface using metal clips or fastening grids which are nailed to it.
   In order to ensure the hose is always in contact with the construction joint, the distance between the fastening clips or metal clips should not exceed 15 cm. The hose must not float or be clear of the supporting surface at any point.
4. The distance from the surrounding reinforcement rods should be at least 5 cm.
   Ensure a minimum distance of 10 cm from the edge on all sides. The minimum bending radius is 5 cm.

Installation and injection



5. Successive injection hose sections must overlap by at least 10 cm to ensure continuous injection of the joint.
   Injection hoses running parallel to one another must be at least 5 cm apart. Otherwise during injection of one hose, the other could also be filled and subsequently may no longer be injectable.
6. The injection hose can either be directly connected to our fastening packers which are mounted on the formwork or routed via injection end pieces to a storage box. The connection should be as close as possible to a 90° angle to the wall. The storage boxes or fastening packers must be attached so they can subsequently be accessed without difficulty at any time.
7. A hose connector should be used as the transition between injection hose and injection end piece. This hose connector must be cast into the concrete in order to be able to inject the injection hose correctly later on.
8. At the foundation/wall transition, the injection hose must be routed right into the corner of the joint and routed upwards via a loop.
9. If injection hoses cross over and are a distance of ≤ 5 cm apart, adhesive tape must be wound round one of the injection hoses in the area of the intersection for a distance of 8 – 10 cm. This prevents accidental injection of the other injection hose.
10. Once the concrete has cured, 28 days after concreting at the earliest, the joints can be injected via the fastening packer or injection end pieces in the storage box.
11. The DBV code of practise: Injection hose systems and swellable linings for construction joints (January 2010) must be observed.

PROTECT resin system

Injection resins, adhesives and cleaning agents for injection of injection hoses and injection packers and pressure water-tight bonding of fibre cement plugs.

PROTECT PUR resin

Swellable polyurethane resin for hose and crack injection

Art. No.	Description	Packaging	Weight kg	Price €
040015	CE marking, has low viscosity and provides a permanently elastic seal, long processing time of approx. 100 min. at 20°C	1 l combination can 750 ml component A 250 ml component B 6 cans per carton	1.30	**19.80/l**
040018	**PROTECT PUR resin**	10 l container 7.5 l component A 2.5 l component B	11.50	**14.65/l**

PROTECT foam resin

Low-viscosity polyurethane-based foam

Art. No.	Description	Packaging	Weight kg	Price €
040050	Stops the water inflow immediately. Fast expansion with significant increase in volume, satisfies Federal Environment Agency (UBA) guideline for contact with drinking water. Reaction time upon contact with water approx. 50 seconds. Volume increase of up to 3500% upon contact with water	1 l combination can 875 ml component A 125 ml component B 6 cans per carton	1.35	**29.50/l**

PROTECT EP resin

Epoxy resin for non-positive seals

Art. No.	Description	Packaging	Weight kg	Price €
040020	Non-positive filling of cracks and joints. Injection into injection hoses. Suitable for dry and moist substrate, Processing time approx. 45 min. at 20°C	1 l combination can 800 ml component A 200 ml component B 6 cans per carton	1.30	**25.20/l**

PROTECT BK

Solvent-free epoxy-based concrete adhesive

Art. No.	Description	Packaging	Weight kg	Price €
040100	For pressure water-tight sealing of fibre cement distance tubes.	1 kg combination can 0.5 kg component A 0.5 kg component B 10 cans per carton	1.20	**19.70/kg**

For water-impermeable bonding and non-positive connection of concrete components.
Processing time approx. 60 min. at 20°C
Resistances of PROTECT BK once cured:
Diluted acids, mineral oil, lubricants and fuels, saltwater, wastewater, large number of alkalis and solvents, test of suitability for contact with drinking water.

Tested for impermeability up to 70 m water column
Suitable for all fibre cement distance tubes.

PROTECT Clean

Cleaning agent

Art. No.	Description	Packaging	Weight kg	Price €
040045	For cleaning of polyurethane and epoxy resin prior to curing	1 l can 12 cans per carton	1.10	**9.20/l**
040040	For cleaning of polyurethane and epoxy resin prior to curing	10 l canister	10.00	**7.80/l**

Application

All resins must be very well homogenised when stirred in.
Example -
PROTECT PUR resin:

1

Combination can

2

Mixing bucket
Opened resin components
Stirrer

3

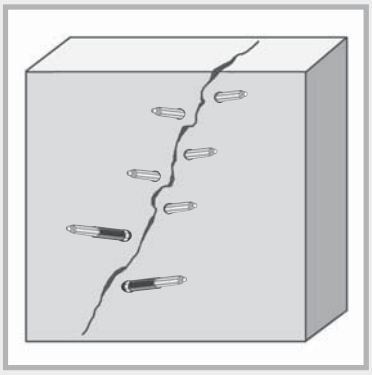
Add both components to the mixing bucket.

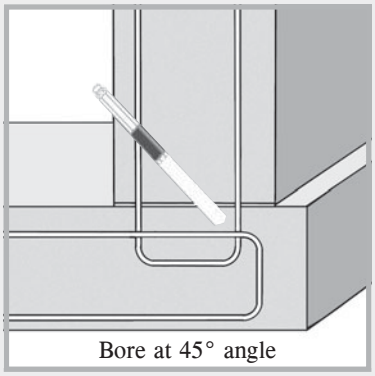
4

Homogenise both components at medium speed.

For detailed descriptions and work instructions refer to our product descriptions which you can request from us.
Resins and adhesives cannot be shipped at temperatures below +5°C.

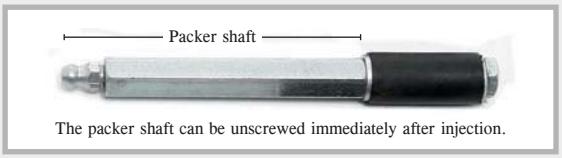
Injection packers + surface packers




Bore at 45° angle

Art. No.	Screw injection packer incl. nipple/size	Drill bit Ø mm	Packaging Carton	Weight kg	**Price/pc. €**
030185	10/70 mm	10	100 pcs.	1.90	**1.99**
030187	10/100 mm	10	100 pcs.	2.70	**2.09**
030183	13/80 mm	14	100 pcs.	2.90	**2.15**
030180	13/100 mm	14	100 pcs.	4.60	**2.20**
030181	13/170 mm	14	100 pcs.	7.00	**3.65**
030182	13/250 mm	14	100 pcs.	10.50	**4.80**

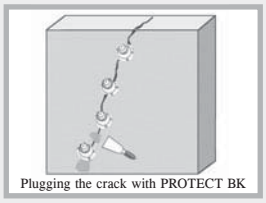
One day site packer



The packer shaft can be unscrewed immediately after injection.

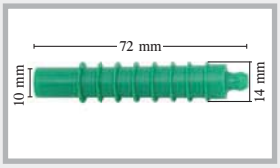
Art. No.	One day site packer incl. nipple/size	Drill bit Ø mm	Packaging Carton	Weight kg	**Price/pc. €**
030188	10/110 mm	10	100 pcs.	3.80	**2.80**
030189	13/115 mm	14	100 pcs.	5.20	**2.90**

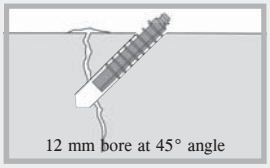
Surface packer

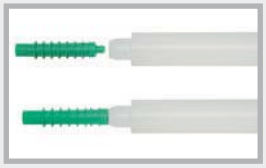

Plugging the crack with PROTECT BK

Art. No.	Description	Packaging Carton	Weight kg	**Price €**
030200	**Plastic surface packer,** washer diameter 5 cm	100 pcs.	1.75 kg/bag	**2.45**

Plastic injector







Art. No.	Description	Packaging Carton	Weight kg	**Price/pc. €**
030210	**Plastic injector** with non-return ball	200 pcs./bag	0.90/bag	**0.85**
030215	**Impact stud**	1 pc.	0.07/pc.	**7.90**

LIDOL concrete release agent

Art. No.	Description	Packaging	Units per pallet	Weight kg	**Price €**	
040310	LIDOL MULTI	20 ltr canister	30 canisters	18.5	**3.35 / l**	Drum
040315	LIDOL MULTI Universal release agent for all common types of formwork	30 ltr canister	24 canisters	27.5	**3.35 / l**	
040320	LIDOL MULTI	200 ltr drum with integrated faucet	2 drums	191.0	**3.15 / l**	
040330	LIDOL BIO Universal release agent for all common types of formwork	20 ltr canister	30 canisters	18.5	**4.15 / l**	30 ltr canister
040335	LIDOL BIO Highly biodegradable	30 ltr canister	24 canisters	27.5	**4.15 / l**	
040340	LIDOL BIO Environmental label "Blue Angel"	200 ltr drum with integrated faucet	2 drums	191.0	**3.95 / l**	
040350	TECCO 10 ltr compression sprayer with fine spray nozzle	1 pc.		6.2	**189.00 / pc.**	20 ltr canister

LIDOL concrete release agents are environmentally sound and biodegradable or highly biodegradable formwork release agents. Our range includes both 200-litre drums and 20-litre and 30-litre canisters.

LIDOL concrete release agents are universally applicable release agents which can be used for all common types of formwork in building construction.

Type of formwork	**Use of LIDOL**
Betoplan	YES
Magnoplan	YES
NOE-Form	YES
Struktoplan	YES
Plastic facing formwork	YES
Timber formwork, planed sucking	YES
Timber formwork, unplaned sucking	YES

LIDOL MULTI

LIDOL MULTI is an environmentally sound universal release agent

The application of LIDOL MULTI to the formwork prevents the formwork from coming into contact with the concrete.
The formwork can therefore be easily stripped.

Applications:

- For all common formwork types
- With fair-faced concrete
- When coating concrete surfaces with plaster, stucco or similar material, e.g. wallpaper, paint, ceramic
- Does not contain extra corrosion protection additives, corrosion protection is provided by mineral oils

Environmental aspects:

- Water hazard class 1 = low hazard to water
- Not subject to mandatory labelling
- Flashpoint > 120°C
- Neutral odour

Application:

LIDOL MULTI is not sensitive to frost and can be used without problems in all weather conditions. The release agent can be applied by spraying, brushing or rolling.

The most economical application method is using the TECCO compression sprayer.

Type of formwork	1 litre of LIDOL MULTI is sufficient for
Formwork panels	approx. 80 m²
Planed timber surface	approx. 40 m²
Unplaned timber surface	approx. 30 m²

LIDOL BIO

LIDOL BIO is an environmentally sound and highly biodegradable universal release agent

Special award:

Due to its high environmental compatibility, LIDOL BIO was awarded the environmental label “Blue Angel” by RAL Deutsches Institut für Gütesicherung und Kennzeichnung e.V (German Institute for Quality Assurance and Labelling).

Applications:

- In water protection areas and zones with environmental stipulations
- For all common formwork types
- With fair-faced concrete
- When coating concrete surfaces with plaster, stucco or similar material, e.g. wallpaper, paint, ceramic

Environmental aspects:

- Water hazard class 1 = low hazard to water, highly biodegradable
- Not subject to mandatory labelling
- Flashpoint > 120°C
- Neutral odour

Application:

LIDOL BIO is not sensitive to frost and can be used without problems in all weather conditions. The release agent can be applied by spraying, brushing or rolling. The most economical application method is using the TECCO compression sprayer.

Formwork type	**1 litre of LIDOL BIO**
formwork panels	approx. 75 m²
planed timber surface	approx. 35 m²
unplaned timber surface	approx. 25 m²

TECCO 10 ltr

Compression sprayer with fine filter for economical application of concrete release agents.

Design:

- Steel container with polyester coating
- 2.5 m spiral hose with safety lock
- Flat jet nozzle with fine filter
- Sight glass for level monitoring
- Oil-resistant seals
- Integrated spare parts compartment with spare seals and O-rings

MASTER-Tape

Film gluing system for waterproofing of joints

Product description

MASTER-Tape waterproofing strips for reliable external waterproofing of construction, expansion and connecting joints in concrete construction.

MASTER-Tape technical data

Material:	Thermoplastic elastomer TPE
Water impermeability:	>4 bar
Longitudinal + lateral elongation at break:	1000%
Colour:	Grey
Bonding:	With MASTER-Tape Epoxi
Processing:	Weldable with 10 cm overlap
Resistance:	Diluted acids, alkalis, liquid manure, slurry, fermentation mash, oil and bitumen, radon, methane gas, salt water, root-proof, concrete alkalinity, approved for use in contact with drinking water

Dimensions

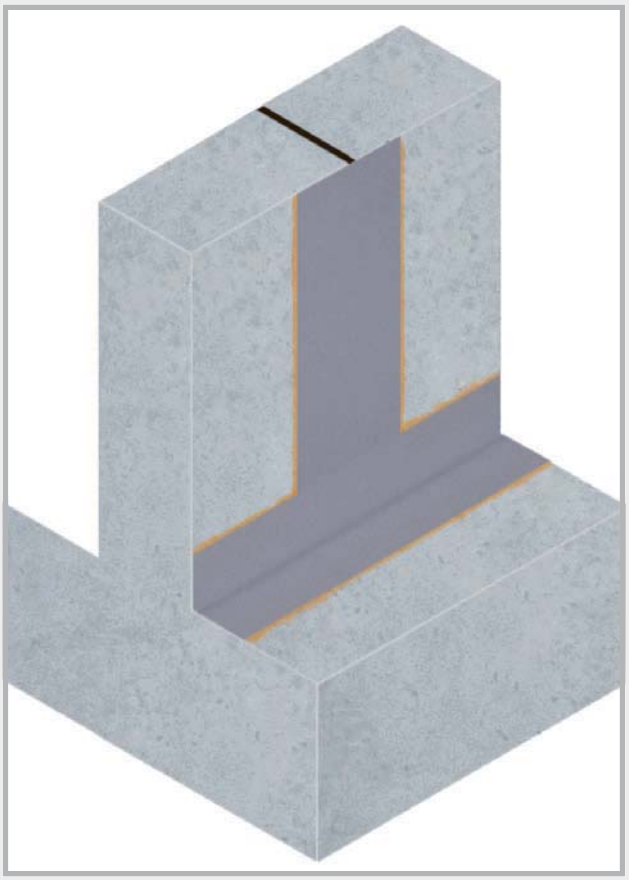
Art. No.	Description	Roll width mm	Roll length m	Weight of roll/kg	**Price €/m**
043150	**MASTER-Tape 1 mm**	150	20	3.00	**7.40**
043200	**MASTER-Tape 1 mm**	200	20	4.00	**9.70**
043250	**MASTER-Tape 1 mm**	250	20	5.00	**12.40**
043260	**MASTER-Tape 2 mm**	200	20	8.00	**14.00**
043270	**MASTER-Tape 2 mm**	250	20	10.00	**17.40**

Art. No.	Description	Packaging	Weight kg	**Price €/kg**
043280	**MASTER-Tape Epoxi** Two-component epoxy resin adhesive	6 kg metal container 3.0 kg base component 3.0 kg hardener component	7.40	**14.50**

MASTER-Tape Epoxi technical data

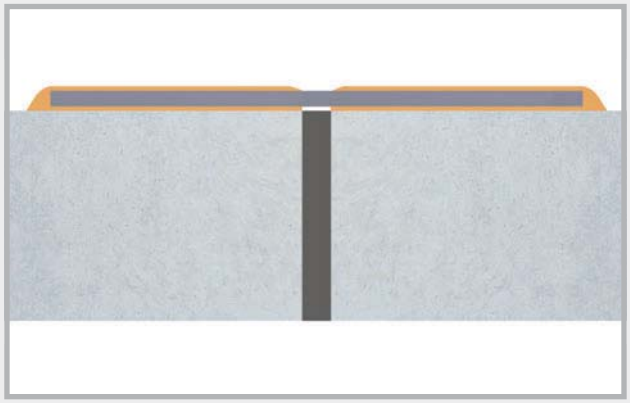
Product:	Solvent-free reactive polymer based on epoxy resin
Consistency:	Ready to apply in the vertical and horizontal direction once stirred in
Mix:	1 : 1
Processing time:	60 – 80 minutes (20°C)
Full loading capability:	7 days following curing at 20°C
Application:	Allow all hardener component to flow into the base component and stir in using a slow-turning agitator until the mass has an even streak-free consistency. Once stirred in, the adhesive is immediately ready for processing and can be applied to a dry, clean substrate with suitable load capacity. Minimum component and ambient temperature +8 °C.
Storage:	Dry and frost-free

Application



Waterproofing of a construction joint and the fillet. The adhesive has not yet been applied.

Construction joint with MASTER-Tape



Expansion joint with MASTER-Tape

- Cleaning the substrate

  The substrate must be clean and dry with suitable load capacity.
  Separating substances must be removed.
- Stir in the MASTER-Tape Epoxi epoxy resin adhesive.
- Apply MASTER-Tape Epoxi to entire surface using a 4 mm toothed spatula.
  Minimum component and ambient temperature +8°C.
- Press the entire envisaged bonding area of the waterproofing strip into the epoxy resin mortar.
- Apply a covering layer with a thickness of approx. 2 mm to the bonding area of the waterproofing strip.
- With expansion joints, the expansion area must not be coated.
- In general, the waterproofing strips must be protected from mechanical damage when installed and prior to installation.
- Usage of MASTER-Tape Epoxi system adhesive

Roll width:	150 mm	200 mm	250 mm
Usage:	1.3 kg/m	1.7 kg/m	2.0 kg/m

PRESSURE WATER-TIGHT SERVICE DUCTS

Sealing collars
pages 62 – 65

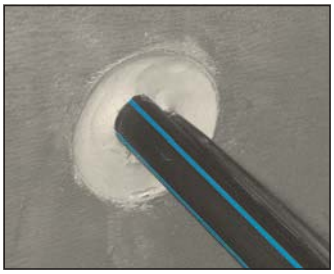
Lining pipes
pages 66 – 71

Cable bushings
pages 71 – 72

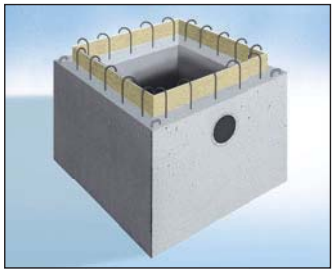
Sewage pipe bushings
pages 73 – 79

Floor drainage
pages 80 – 81

Gasket inserts
Modular seals
pages 82 – 88



FLEX 2000
page 89



Pump sumps
pages 90 – 94

RONDO Sealing collars

YouTube INSTALLATION FILM

Dimensions

Art. No.	Type	for pipe outer diameters/ mm	Suitable for outer dia. from (mm) to (mm)		Pcs. per pack	Weight per pc.	Price € per pc.
090890	RO 10	For lightning protection round conductors	8	10	100 pcs.per carton	0.13 kg	**17.90**
090892	RO flat	For earthing strap	30x3.5mm + 30x3mm		1	0.15 kg	**18.80**
090900	RO 25	25	25	25	1	0.25 kg	**19.70**
090902	RO 32	32	31	32	1	0.25 kg	**20.20**
090904	RO 40	40	39	42	1	0.26 kg	**20.60**
090906	RO 50	50	48	53	1	0.29 kg	**20.90**
090908	RO 63	63	61	64	1	0.32 kg	**21.30**
090910	RO 75	75	72	80	1	0.36 kg	**21.50**
090912	RO 90	90	87	92	1	0.45 kg	**21.80**
090914	RO 110	Sewage pipe DN 100 110	107	115	50 pcs. per carton	0.48 kg	**22.00**
090916	RO 125	Sewage pipe DN 125 125	123	130	40 pcs. per carton	0.51 kg	**23.30**
090918	RO 140	140	137	147	1	0.54 kg	**25.00**
090920	RO 160	Sewage pipe DN 150 160	157	166	35 pcs. per carton	0.62 kg	**26.50**
090921	RO 170	170	167	177	1	0.66 kg	**26.90**
090922	RO 180	180	177	187	1	0.68 kg	**27.60**
090924	RO 200	Sewage pipe DN 200 200	197	207	30 pcs. per carton	0.70 kg	**29.10**
090926	RO 225	225	220	230	1	0.81 kg	**30.40**
090928	RO 250	Sewage pipe DN 250 250	245	260	1	0.89 kg	**30.80**
090930	RO 280	280	275	290	1	0.92 kg	**36.00**
090932	RO 315	Sewage pipe DN 300 315	310	324	1	1.07 kg	**37.60**
090934	RO 355	355	350	365	1	1.18 kg	**42.70**
090936	RO 400	Sewage pipe DN 400 400	395	410	1	1.31 kg	**44.90**
090938	RO 450	450	440	460	1	1.90 kg	**57.70**
090940	RO 500	Sewage pipe DN 500 500	495	515	1	2.15 kg	**59.30**
090942	RO 560	560	555	580	1	2.60 kg	**64.20**
090944	RO 630	630	625	650	1	2.90 kg	**70.00**
090946	RO 710	710	705	735	1	3.00 kg	**80.10**
090948	RO 800	800	795	830	1	3.40 kg	**87.00**
090950	RO 900	900	895	930	1	4.25 kg	**96.00**
090952	RO 1000	1000	995	1030	1	4.45 kg	**150.50**
090954	RO 1200	1200	1195	1240	1	5.75 kg	**182.90**

The sealing collars are even easier to install if placed in warm water beforehand (10 minutes).

RONDO Ecco

The low-priced sealing collar for waterproofing of pipes and cables

Supplied ready for installation with stainless steel fastening straps

Dimensions

Art. No.	Type	Suitable for outer dia. from to	Packaging Carton	Weight per pc.	Price € per pc.
091050	RO Ecco 110	107 – 115 mm	80	0.30 kg	**19.20**
091053	RO Ecco 125	122 – 130 mm	70	0.34 kg	**20.90**
091056	RO Ecco 160	157 – 170 mm	60	0.40 kg	**23.50**
091059	RO Ecco 200	197 – 210 mm	50	0.47 kg	**25.10**

RONDO Base

High-pressure sealing collar

70 m water column with only one fastening strap

Dimensions

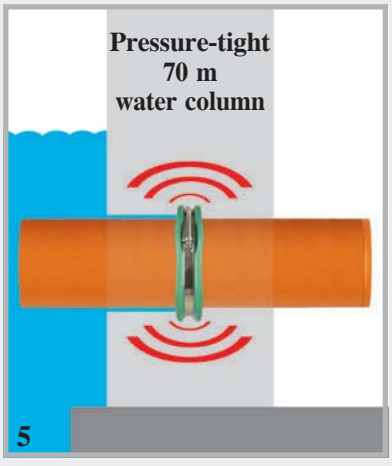
Art. No.	Type	for pipe outer diameters/mm	Packaging Carton	Weight per pc.	Price € per pc.
090970	RO Base 90	90	25	3.2 kg	**17.40**
090978	RO Base 110	110	25	4.0 kg	**17.50**
090980	RO Base 125	125	25	4.2 kg	**20.45**
090984	RO Base 160	160	25	5.5 kg	**22.30**
090990	RO Base 200	200	25	6.5 kg	**24.25**
090994	RO Base 250	250	10	3.2 kg	**30.75**
090998	RO Base 315	315	10	4.0 kg	**33.50**

Clean outside of pipe

Push on RONDO Base

Position sealing collar, ideally at centre of wall or foundation

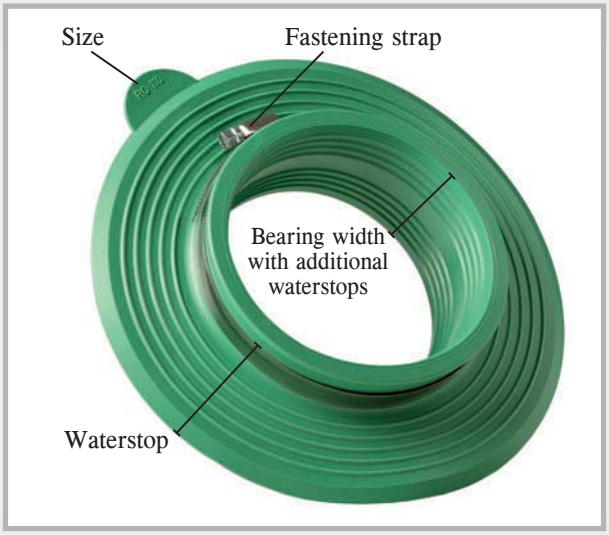
Tighten fastening strap to approx. 5 – 6 Nm.

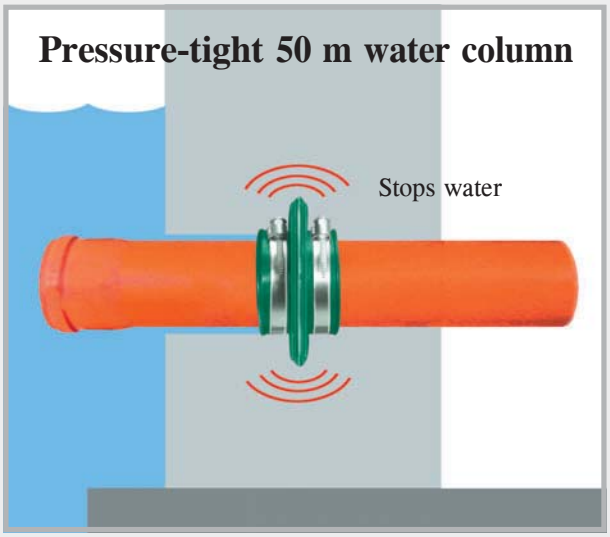


RONDO Base installation complete

RONDO Product description

RONDO sealing collars securely seal pipes and cables made of plastic, steel, fibre cement and vitrified clay against a water column of up to 50 metres. The bushings in concrete foundations and walls are securely sealed against groundwater and pressurised water.

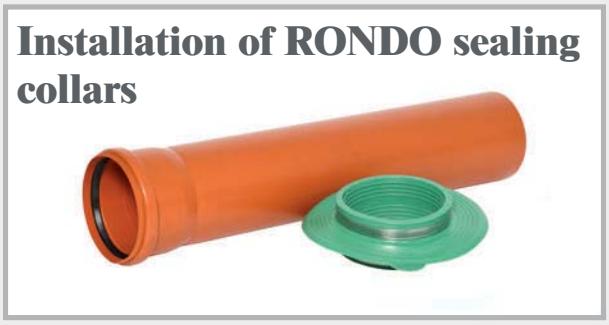




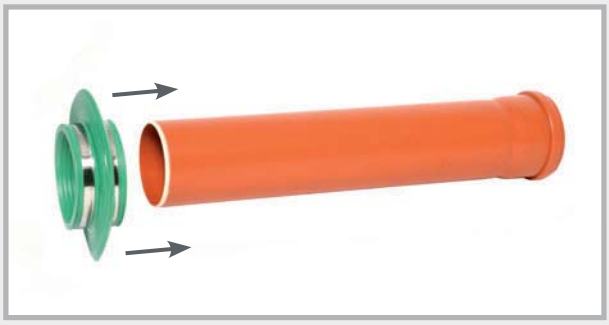
The sealing collar is supplied with fastening straps, ready for installation

Size	Waterstop	Bearing width	Testing	Material	Resistance
10 mm – 400 mm	Single waterstop, 4 cm 2 fastening straps	6 cm	50 m water column	TPE mixture	Diluted acids, alkalis, liquid manure, slurry, fermentation mash, oil and bitumen, radon, methane gas
450 mm – 1200 mm	Double water stop, 4 cm 3 fastening straps	8 cm	40 m water column	EPDM	Diluted acids and alkalis, liquid manure, slurry, fermentation mash, limited resistance to oil and bitumen

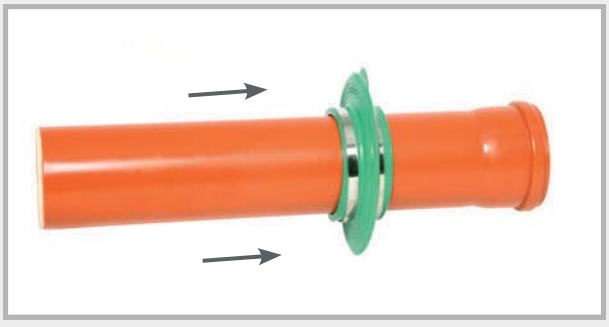
Installation of RONDO sealing collars



Sewage pipe and RONDO 110



Pushing on the sealing collar



Positioning the sealing collar

Securing by tightening the fastening straps

The surface of the pipe should be cleaned, if dirty.

RONDO sealing collars – practical applications

RONDO for lightning protection round conductor

RONDO for lightning protection flat conductor

The sealing collar can be used for almost all pipe types. Regardless of whether your pipes are made of plastic, vitrified clay, concrete, cast iron, or steel – the collar ensures perfect sealing.

At the construction site

The RONDO, shortly before placement of concrete. The drainpipes are securely and permanently sealed against rising moisture.

Lining pipes

DURO Plus high-pressure lining pipes

Product description

DURO Plus are high pressure-resistant lining pipes for secure and permanent routing of pipes and cables in buildings. A collar which can withstand water pressures of up to 7 bar is fitted to the lining pipes at the factory.

- High-pressure test performed by MFPA Leipzig
- No risk of fracturing
- DN 50 mm to DN 300 mm available in lengths up to 3 m
- Suitable for all standard gasket inserts and modular seals
- Extremely high resistance to chemicals

Technical data

Pipe:	PVC	
Collar:	TPE mixture	
Diameter:	DN 50	- pressure-tight up to 5 bar
	DN 80 - DN 300	- pressure-tight up to 7 bar
Temperature range:	-20°C to +60°C	
Storage:	Avoid exposure to sunlight over several weeks	

Testing

Pressure was applied to the sealing collar for a total of 17 weeks. The maximum pressure of 7 bar was maintained for 28 days. The joint between the sealed pipe and the concrete was completely watertight.

Resistance

DURO Plus lining pipes are resistant to a large number of media

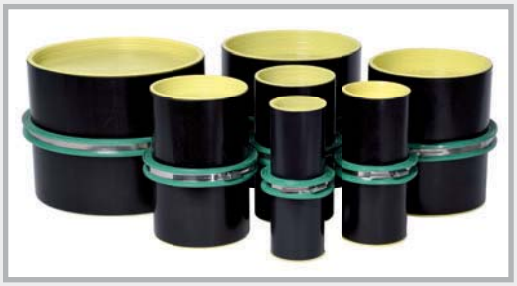
- Diluted acids and alkalis
- Fermentation mash
- Salt water
- Biogas
- Methane gas + radon
- Concrete alkalinity
- Liquid manure + slurry
- Liquids aggressive to concrete

With higher concentrations, the resistances must be requested.

DURO Plus with and without foil flange

Product range

The diameters DN 50 to DN 300 are available within a few days. When ordering, please state whether you require the lining pipes with or without plugs.



DURO inner Ø mm	outerØ mm	Standard lengths											
		200 mm	240 mm	250 mm	300 mm	350 mm	365 mm	400 mm	500 mm	600 mm	800 mm	1000 mm	1200 mm
DN 50	**54**	090010	090013	090016	090019	090022	090025	090028	090031	090034	090037	090040	090043
Weight/pc.		0.31 kg	0.37 kg	0.39 kg	0.46 kg	0.54 kg	0.56 kg	0.62 kg	0.78 kg	0.93 kg	1.24 kg	1.56 kg	1.87 kg
€/pc.		**27.30**	**28.60**	**28.60**	**30.00**	**31.10**	**31.10**	**32.20**	**33.30**	**34.30**	**36.50**	**38.60**	**40.80**
DN 80	**85**	090050	090053	090056	090059	090062	090065	090068	090071	090074	090077	090080	090083
Weight/pc.		0.30 kg	0.36 kg	0.38 kg	0.45 kg	0.53 kg	0.55 kg	0.60 kg	0.76 kg	0.91 kg	1.21 kg	1.52 kg	1.82 kg
€/pc.		**29.40**	**30.80**	**30.80**	**32.10**	**33.30**	**33.30**	**34.30**	**35.40**	**36.50**	**38.60**	**40.80**	**42.90**
DN 100	**110**	090110	090113	090116	090119	090122	090125	090128	090131	090134	090137	090140	090143
Weight/pc.		0.60 kg	0.72 kg	0.76 kg	0.91 kg	1.06 kg	1.10 kg	1.21 kg	1.52 kg	1.82 kg	2.43 kg	3.04 kg	3.64 kg
€/pc.		**30.30**	**31.70**	**31.70**	**33.40**	**34.60**	**34.60**	**35.80**	**36.90**	**38.30**	**41.90**	**44.10**	**46.40**
DN 125	**137**	090150	090153	090156	090159	090162	090165	090168	090171	090174	090177	090180	090183
Weight/pc.		0.75 kg	0.90 kg	0.94 kg	1.12 kg	1.31 kg	1.37 kg	1.50 kg	1.88 kg	2.25 kg	3.00 kg	3.76 kg	4.51 kg
€/pc.		**33.80**	**34.30**	**34.30**	**36.10**	**37.40**	**37.40**	**38.40**	**39.70**	**45.40**	**52.30**	**60.10**	**69.50**
DN 150	**162**	090210	090213	090216	090219	090222	090225	090228	090231	090234	090237	090240	090243
Weight/pc.		0.86 kg	1.03 kg	1.08 kg	1.29 kg	1.51 kg	1.57 kg	1.72 kg	2.16 kg	2.59 kg	3.45 kg	4.32 kg	5.18 kg
€/pc.		**32.40**	**35.20**	**35.20**	**39.00**	**42.20**	**42.20**	**45.40**	**47.30**	**49.40**	**56.90**	**65.40**	**75.10**
DN 200	**214**	090250	090253	090256	090259	090262	090265	090268	090271	090274	090277	090280	090283
Weight/pc.		1.31 kg	1.57 kg	1.64 kg	1.96 kg	2.29 kg	2.39 kg	2.62 kg	3.28 kg	3.93 kg	5.24 kg	6.56 kg	7.87 kg
€/pc.		**43.30**	**47.50**	**47.50**	**53.50**	**59.00**	**59.00**	**64.30**	**67.50**	**70.70**	**81.40**	**93.40**	**107.50**
DN 250	**264**	090310	090313	090316	090319	090322	090325	090328	090331	090334	090337	090340	090343
Weight/pc.		1.63 kg	1.95 kg	2.04 kg	2.44 kg	2.85 kg	2.97 kg	3.26 kg	4.08 kg	4.89 kg	6.52 kg	8.16 kg	9.79 kg
€/pc.		**48.10**	**54.30**	**54.30**	**60.50**	**66.90**	**66.90**	**73.10**	**78.50**	**83.80**	**96.50**	**111.00**	**127.60**
DN 300	**316**	090350	090353	090356	090359	090362	090365	090368	090371	090374	090377	090380	090383
Weight/pc.		2.48 kg	2.98 kg	3.11 kg	3.73 kg	4.35 kg	4.54 kg	4.97 kg	6.22 kg	7.46 kg	9.95 kg	12.44 kg	14.92 kg
€/pc.		**52.30**	**59.50**	**59.50**	**66.60**	**74.40**	**74.40**	**81.60**	**88.00**	**94.50**	**113.50**	**136.10**	**163.30**

Any intermediate lengths can be supplied
Lengths up to 3000 mm are available

We charge the price of the next higher stock length

We recommend installation with closure plugs

FASO lining pipe

The fibre cement lining pipes are available immediately in the sizes DN 80 to DN 600. The pipe is smooth on the inside and corrugated and rough on the outside. The bond formed by the corrugated exterior of the pipe with the concrete prevents water permeation.
If you wet the lining pipes prior to placement of the concrete, the bond with the concrete will be even more effective.

FASO inner Ø mm	outerØ mm	Standard lengths											
		200 mm	240 mm	250 mm	300 mm	350 mm	365 mm	400 mm	500 mm	600 mm	800 mm	1000 mm	1200 mm
DN 80	**120**	080210	080211	080212	080213	080214	080215	080216	080217	080218	080918	080950	080219
Weight/pc.		2.4 kg	2.8 kg	3.0 kg	3.5 kg	4.1 kg	4.3 kg	4.7 kg	5.9 kg	7.0 kg	9.4 kg	11.7 kg	14.0 kg
€/pc.		**18.20**	**20.20**	**20.50**	**23.10**	**32.50**	**32.80**	**34.10**	**40.40**	**48.60**	**64.70**	**80.90**	**97.00**
DN 100	**140**	080220	080221	080222	080223	080224	080225	080226	080227	080228	080921	080952	080229
Weight/pc.		2.9 kg	3.4 kg	3.6 kg	4.3 kg	5.0 kg	5.2 kg	5.7 kg	7.1 kg	8.5 kg	11.4 kg	14.2 kg	17.0 kg
€/pc.		**23.40**	**27.50**	**28.80**	**33.90**	**39.50**	**40.80**	**44.60**	**55.20**	**65.80**	**84.30**	**105.30**	**120.60**
DN 125	**165**	080230	080231	080232	080233	080234	080235	080236	080237	080238	080922	080954	080239
Weight/pc.		3.6 kg	4.3 kg	4.5 kg	5.4 kg	6.3 kg	6.6 kg	7.2 kg	9.0 kg	10.7 kg	14.3 kg	17.9 kg	21.4 kg
€/pc.		**28.20**	**33.10**	**34.20**	**40.50**	**46.80**	**49.00**	**53.40**	**65.90**	**78.50**	**95.70**	**120.90**	**128.30**
DN 150	**190**	080240	080241	080242	080243	080244	080245	080246	080247	080248	080924	080956	080249
Weight/pc.		4.1 kg	4.9 kg	5.1 kg	6.1 kg	7.1 kg	7.4 kg	8.1 kg	10.1 kg	12.1 kg	16.2 kg	20.1 kg	24.2 kg
€/pc.		**36.90**	**43.70**	**45.40**	**53.90**	**62.30**	**64.80**	**70.60**	**87.50**	**104.30**	**135.60**	**167.10**	**193.40**
DN 200	**250**	080250	080251	080252	080253	080254	080255	080256	080257	080258	080926	080958	080259
Weight/pc.		6.5 kg	7.8 kg	8.1 kg	9.7 kg	11.3 kg	11.8 kg	12.9 kg	16.1 kg	19.3 kg	25.8 kg	32.2 kg	38.6 kg
€/pc.		**42.10**	**49.70**	**51.50**	**61.20**	**70.70**	**73.50**	**80.30**	**99.20**	**118.40**	**151.30**	**188.60**	**219.60**
DN 250	**300**	080260	080261	080262	080263	080264	080265	080266	080267	080268	080928	080960	080269
Weight/pc.		8.1 kg	9.7 kg	10.1 kg	12.1 kg	14.2 kg	14.8 kg	16.2 kg	20.2 kg	24.2 kg	32.3 kg	40.1 kg	48.4 kg
€/pc.		**51.80**	**60.60**	**63.00**	**74.50**	**85.80**	**89.20**	**97.20**	**120.10**	**143.00**	**181.50**	**226.90**	**252.40**
DN 300	**350**	080270	080271	080272	080273	080274	080275	080276	080277	080278	080930	080962	080279
Weight/pc.		9.8 kg	11.8 kg	12.3 kg	14.7 kg	17.1 kg	17.9 kg	19.6 kg	24.4 kg	29.3 kg	39.1 kg	48.9 kg	58.6 kg
€/pc.		**57.70**	**68.00**	**70.60**	**83.20**	**95.90**	**99.60**	**108.60**	**133.90**	**159.40**	**202.30**	**253.00**	**278.10**
DN 350	**400**	080280	080281	080282	080283	080284	080285	080286	080287	080288	080932	080964	080289
Weight/pc.		11.2 kg	13.4 kg	14.0 kg	16.7 kg	19.5 kg	20.4 kg	22.3 kg	27.9 kg	33.4 kg	44.6 kg	55.7 kg	66.8 kg
€/pc.		**77.60**	**91.40**	**94.80**	**112.00**	**129.30**	**134.40**	**146.50**	**180.90**	**215.20**	**273.20**	**341.60**	**379.50**
DN 400	**460**	080290	080291	080292	080293	080294	080295	080296	080297	080298	080934	080966	080299
Weight/pc.		15.4 kg	18.5 kg	19.3 kg	23.1 kg	26.9 kg	28.1 kg	30.8 kg	38.5 kg	46.1 kg	61.5 kg	76.9 kg	92.2 kg
€/pc.		**107.00**	**125.80**	**130.50**	**154.30**	**177.90**	**184.80**	**201.40**	**248.70**	**296.00**	**375.90**	**469.90**	**521.20**
DN 450	**510**	080300	080301	080302	080303	080304	080305	080306	080307	080308	080936	080968	080309
Weight/pc.		17.5 kg	21.0 kg	21.9 kg	26.2 kg	30.6 kg	31.9 kg	35.0 kg	43.7 kg	52.4 kg	69.6 kg	87.4 kg	104.8 kg
€/pc.		**123.40**	**145.20**	**150.70**	**178.10**	**205.30**	**213.60**	**232.60**	**287.40**	**342.00**	**431.00**	**542.70**	**602.20**
DN 500	**570**	080310	080311	080312	080313	080314	080315	080316	080317	080318	080938	080970	080319
Weight/pc.		22.4 kg	26.8 kg	28.0 kg	33.5 kg	39.1 kg	40.8 kg	44.7 kg	55.9 kg	67.0 kg	89.4 kg	111.7 kg	134.0 kg
€/pc.		**146.40**	**172.10**	**178.50**	**211.20**	**242.90**	**252.60**	**275.00**	**339.40**	**403.90**	**512.80**	**641.00**	**709.30**
DN 600	**670**	080320	080321	080322	080323	080324	080325	080326	080327	080328	080940	080972	080329
Weight/pc.		26.8 kg	32.1 kg	33.5 kg	40.1 kg	45.9 kg	48.8 kg	53.5 kg	66.9 kg	80.2 kg	107.0 kg	133.7 kg	160.4 kg
€/pc.		**166.90**	**196.10**	**203.30**	**239.90**	**276.30**	**287.30**	**312.50**	**385.60**	**458.40**	**581.90**	**727.50**	**803.30**
DN 700	**780**	080330	080331	080332	080333	080334	080335	080336	080337	080338	080942	080974	080339
Weight/pc.		38.0 kg	45.6 kg	47.5 kg	57.0 kg	66.5 kg	69.4 kg	76.0 kg	95.0 kg	114.0 kg	152.0 kg	190.0 kg	228.0 kg
€/pc.		**289.00**	**383.90**	**399.80**	**433.10**	**488.20**	**509.70**	**515.30**	**627.40**	**717.20**	**814.80**	**913.00**	**980.60**
DN 800	**880**	080340	080341	080342	080343	080344	080345	080346	080347	080348	080944	080976	080349
Weight/pc.		42.5 kg	51.0 kg	53.2 kg	63.8 kg	74.7 kg	77.6 kg	85.0 kg	106.3 kg	127.5 kg	170.0 kg	212.5 kg	255.0 kg
€/pc.		**322.10**	**449.80**	**468.70**	**521.80**	**555.20**	**579.10**	**606.20**	**748.30**	**883.70**	**997.20**	**1124.50**	**1172.30**

Special lengths: Any intermediate lengths can be supplied. **Lead time for DN 700 and DN 800: 10 days**
We charge the price of the next higher stock length.
DN 80 to DN 600 can be extended up to 1600 mm: 40% surcharge

Delivery: From DN 250 only by forwarding agent; up to DN 200 by parcel service with restrictions, clarify dispatch method

We recommend installation with closure plugs

WELLO active lining pipe

When the use of sealing collars is not possible, lining pipes are installed, which enable the subsequent water-tight lead-through of the medium pipe into the building.
The cost-efficient PE lining pipe is available at short notice ex stock in dia. 100 to 400 mm. Its inner surface is smooth. The corrugated outside ensures a firm bond with the concrete. Two swelling tapes applied centrally around the lining pipe act as waterstops.

Tested for impermeability up to 20 m water column

Double security due to corrugation and swelling tape

Waterproofing with gasket insert

Waterproofing with modular seal

WELLO inner Ø mm	Standard lengths								
	200 mm	240 mm	250 mm	300 mm	350 mm	365 mm	400 mm	500 mm	600 mm
DN 100	080130	080131	080132	080133	080134	080135	080136	080137	080138
Weight/pc.	0.28 kg	0.31 kg	0.32 kg	0.35 kg	0.39 kg	0.40 kg	0.43 kg	0.50 kg	0.57 kg
€/pc.	23.20	23.70	23.70	24.90	25.90	25.90	26.80	27.60	28.90
DN 125	080140	080141	080142	080143	080144	080145	080146	080147	080148
Weight/pc.	0.33 kg	0.36 kg	0.37 kg	0.42 kg	0.46 kg	0.48 kg	0.51 kg	0.60 kg	0.69 kg
€/pc.	24.90	25.90	25.90	27.10	27.90	27.90	28.90	30.50	32.30
DN 150	080150	080151	080152	080153	080154	080155	080156	080157	080158
Weight/pc.	0.44 kg	0.49 kg	0.51 kg	0.57 kg	0.64 kg	0.66 kg	0.70 kg	0.84 kg	1.01 kg
€/pc.	26.70	27.40	27.40	28.70	29.90	29.90	31.50	33.00	34.70
DN 200	080160	080161	080162	080163	080164	080165	080166	080167	080168
Weight/pc.	0.67 kg	0.75 kg	0.77 kg	0.88 kg	0.99 kg	1.02 kg	1.10 kg	1.31 kg	1.53 kg
€/pc.	31.40	32.40	32.40	33.40	34.70	34.70	37.00	38.40	40.20
*DN 250	080170	080171	080172	080173	080174	080175	080176	080177	080178
Weight/pc.	0.94 kg	1.07 kg	1.10 kg	1.27 kg	1.43 kg	1.48 kg	1.59 kg	1.92 kg	2.24 kg
€/pc.	32.70	34.40	34.40	35.50	37.50	37.50	39.50	42.50	45.70
DN 300	080180	080181	080182	080183	080184	080185	080186	080187	080188
Weight/pc.	1.19 kg	1.36 kg	1.41 kg	1.62 kg	1.83 kg	1.90 kg	2.04 kg	2.47 kg	2.89 kg
€/pc.	37.40	39.10	39.10	43.10	45.80	45.80	46.60	50.40	54.20
*DN 350	080190	080191	080192	080193	080194	080195	080196	080197	080198
Weight/pc.	1.70 kg	1.96 kg	2.02 kg	2.35 kg	2.67 kg	2.77 kg	3.00 kg	3.65 kg	4.30 kg
€/pc.	39.80	40.50	40.50	46.70	49.00	49.00	52.30	57.20	62.80
DN 400	080200	080201	080202	080203	080204	080205	080206	080207	080208
Weight/pc.	2.14 kg	2.47 kg	2.56 kg	2.98 kg	3.40 kg	3.52 kg	3.82 kg	4.66 kg	5.50 kg
€/pc.	49.20	51.10	51.10	56.10	60.30	60.30	64.90	71.60	79.20

Special lengths: Any intermediate lengths can be supplied. *** DN 250 + DN 350 waterproofing with modular seal only**
Up to length of 600 mm, the price will be that of the next higher stock length.
Maximum length of lining pipe: 2000 mm

We recommend installation with closure plugs

STEELO stainless steel lining pipe

with watertight centre flange against pressurised and non-pressurised water

STEELO lining pipes are manufactured from V2A or V4A stainless steel. The centre flange is welded watertight.
The lining pipes are installed in locations where high stresses, e.g. chemical or thermal, are anticipated.

Suitable for MASTER-RING Standard gasket inserts

V2A stainless steel

Dimensions

Up to DN 400 STEELO always comes with 2 closure plugs.

STEELO V2A lining pipe

Prices are indicated for the sizes that are available in stock.

STEELO inner Ø mm	Standard lengths always with closure plug							
	200 mm	240 mm	250 mm	300 mm	350 mm	365 mm	400 mm	Other lengths
DN 80	081200	081240	081250	081300	081350	081365	081400	
Weight/pc.	2.18 kg	2.34 kg	2.37 kg	2.56 kg	2.76 kg	2.79 kg	2.92 kg	on
€/pc.	156.00	156.00	156.00	156.00	166.00	166.00	166.00	request
DN 100	082200	082240	082250	082300	082350	082365	082400	
Weight/pc.	2.55 kg	2.75 kg	2.82 kg	3.05 kg	3.30 kg	3.38 kg	3.54 kg	on
€/pc.	172.00	172.00	172.00	172.00	185.00	185.00	185.00	request
DN 125	083200	083240	083250	083300	083350	083365	083400	
Weight/pc.	2.96 kg	3.21 kg	3.27 kg	3.52 kg	3.80 kg	3.87 kg	4.07 kg	on
€/pc.	203.00	203.00	203.00	203.00	218.00	218.00	218.00	request
DN 150	084200	084240	084250	084300	084350	084365	084400	
Weight/pc.	3.43 kg	3.72 kg	3.84 kg	4.06 kg	4.42 kg	4.68 kg	4.78 kg	on
€/pc.	219.00	219.00	219.00	219.00	236.00	236.00	236.00	request
DN 200	085200	085240	085250	085300	085350	085365	085400	
Weight/pc.	4.37 kg	4.82 kg	4.85 kg	5.35 kg	5.79 kg	5.96 kg	6.35 kg	on
€/pc.	280.00	280.00	280.00	280.00	299.00	299.00	299.00	request
DN 250	086200	086240	086250	086300	086350	086365	086400	
Weight/pc.	5.40 kg	5.65 kg	6.01 kg	6.54 kg	6.87 kg	7.44 kg	7.80 kg	on
€/pc.	345.00	345.00	345.00	345.00	367.00	367.00	367.00	request
DN 300	087200	087240	087250	087300	087350	087365	087400	
Weight/pc.	7.54 kg	8.40 kg	8.55 kg	9.62 kg	10.70 kg	11.04 kg	11.80 kg	on
€/pc.	390.00	390.00	390.00	390.00	420.00	420.00	420.00	request
DN 400	088200	088240	088250	088300	088350	088365	088400	
Weight/pc.	on	on	on	on	on	on	on	on
€/pc.	request	request	request	request	request	request	request	request
DN 500	089200	089240	089250	089300	089350	089365	089400	
Weight/pc.	on	on	on	on	on	on	on	on
€/pc.	request	request	request	request	request	request	request	request
DN 600	089520	089524	089525	089530	089535	089536	089540	
Weight/pc.	on	on	on	on	on	on	on	on
€/pc.	request	request	request	request	request	request	request	request

V4A = on request

Accessories for lining pipes and pipe bushings

Sewage socket ring for sewage pipe bushings, flow direction type

Art. No.	Type	Pcs. per pack	Weight/kg	**Price/pc. €**
080476	MFR 110	1	0.02	**6.50**
080477	MFR 125	1	0.03	**6.90**
080478	MFR 160	1	0.04	**7.50**
080479	MFR 200	1	0.07	**7.90**

Socket ring

Socket ring on pipe bushing

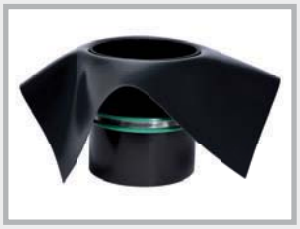
Closure plug + installation aid for lining pipes

DN	Art. No.	Pcs. per pack	Weight kg	**Price/pc. €**
50	**090403**	1	0.02	**1.50**
80	**090401**	1	0.02	**1.70**
100	**090400**	1	0.02	**1.80**
125	**090402**	1	0.04	**2.30**
150	**090404**	1	0.04	**3.20**
200	**090406**	1	0.10	**4.20**
250	**090408**	1	0.16	**6.60**
300	**090410**	1	0.24	**8.30**
350	**090412**	1	0.39	**14.40**
400	**090414**	1	0.45	**18.65**

Reusable

Foil flange for lining pipes – installed

DN	Art. No.	Flange measurements / cm	Weight kg	**Price € / pc.** excl. lining pipe
50	**090388**	40 x 40	0.19	**31.20**
80	**090389**	40 x 40	0.20	**31.20**
100	**090390**	50 x 50	0.43	**36.90**
125	**090391**	50 x 50	0.45	**39.20**
150	**090392**	50 x 50	0.47	**43.40**
200	**090393**	60 x 60	0.70	**45.80**
250	**090394**	60 x 60	0.70	**48.60**
300	**090395**	70 x 70	1.00	**52.00**



Foil flange made of PVC foil, 1.5 mm, resistant to oil and bitumen, weldable with hot air gun, bondable with solvent welding agent

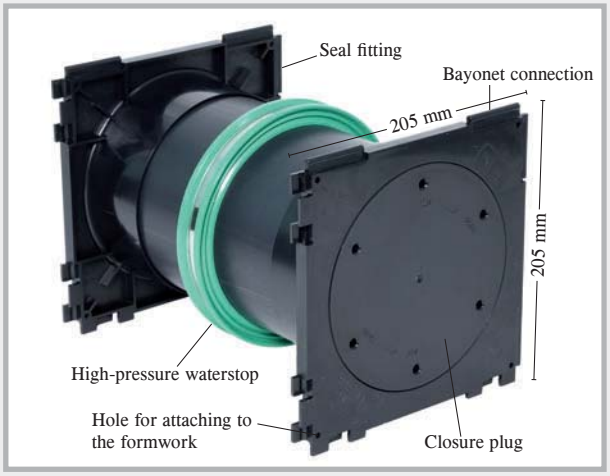
MASTERTEC MKD 150 cable bushing

Stay flexible with the MKD 150 cable bushing

- Flexible connection of cables in new buildings
- Sealed with the MASTERTEC high-pressure collar
- Stable design due to solid wall material
- Compatible with all standard systems

Product description

The MKD 150 cable bushing is manufactured in the corresponding wall thickness and consists of 2 seal fittings, a factory-installed high-pressure waterstop and a closure plug which is pressure-tight up to 3 bar. The bayonet connections are compatible with all standard systems.



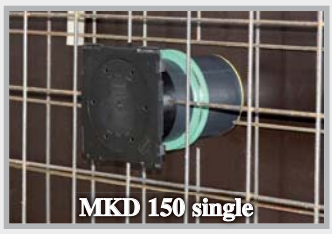
Bayonet connection

Waterproofing of various cables and pipes. The apertures that are not required remain sealed.

You can connect any number of cable bushings using the bayonet connection.

We recommend using gasket inserts for the waterproofing. You can achieve maximum pressure resistance using this system.

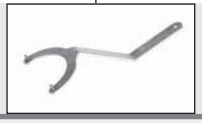
Seal fitting on both sides



Seal fitting on one side; closure plug on the other side

Product range

Art. No.	Wall thickness mm	Weight per pc./kg	**Price pc. / €**	Art. No.	Wall thickness mm	Weight per pc./kg	**Price pc. / €**
162410	180	1.30	**65.00**	**162460**	180	1.10	**47.00**
162415	200	1.40	**65.00**	**162465**	200	1.20	**47.00**
162420	240	1.50	**65.00**	**162470**	240	1.30	**47.00**
162425	250	1.60	**65.00**	**162475**	250	1.30	**47.00**
162430	300	1.70	**65.00**	**162480**	300	1.50	**47.00**
162435	350	1.90	**65.00**	**162485**	350	1.70	**47.00**
162440	365	2.00	**65.00**	**162490**	365	1.70	**47.00**
162445	400	2.10	**65.00**	**162495**	400	1.90	**47.00**
162400	**Key for opening the closure plug**						**32.00**



Other wall thicknesses are available on request

MASTER-RING gasket inserts are available on request. You will need to let us know the outer diameters of the cables and pipes to be led through.

Sewage pipe bushing systems

Double-socket type

Double-socket sewage pipe

KG 2000 double-socket sewage pipe

- Delivered as solid wall version
- Manufactured for corresponding wall thickness
- With plug as installation aid
- With lip seal
- High-pressure water test
- Produced without adhesive joints that could weaken their integrity

Product range - double-socket sewage pipe

Sewage pipe Ø DN mm	Wall thicknesses						
	180 mm	200 mm	240 mm	250 mm	300 mm	365 mm	400 mm
DN 110	080404	080405	080410	080412	080414	080416	080418
Weight/pc.	0.75 kg	0.80 kg	0.90 kg	0.90 kg	1.00 kg	1.10 kg	1.20 kg
€/pc.	36.20	36.20	36.20	36.20	36.20	36.20	36.20
DN 125	080419	080420	080422	080424	080426	080428	080430
Weight/pc.	1.00 kg	1.00 kg	1.10 kg	1.10 kg	1.25 kg	1.45 kg	1.65 kg
€/pc.	40.40	40.40	40.40	40.40	40.40	40.40	40.40
DN 160	not	080433	080434	080436	080438	080440	080442
Weight/pc.	producible	1.75 kg	1.85 kg	1.85 kg	2.05 kg	2.25 kg	2.50 kg
€/pc.		48.30	48.30	48.30	48.30	48.30	48.30
DN 200	not	080443	080444	080445	080446	080448	080450
Weight/pc.	producible	2.80 kg	3.00 kg	3.00 kg	3.35 kg	3.60 kg	3.70 kg
€/pc.		67.50	67.50	67.50	67.50	67.50	67.50

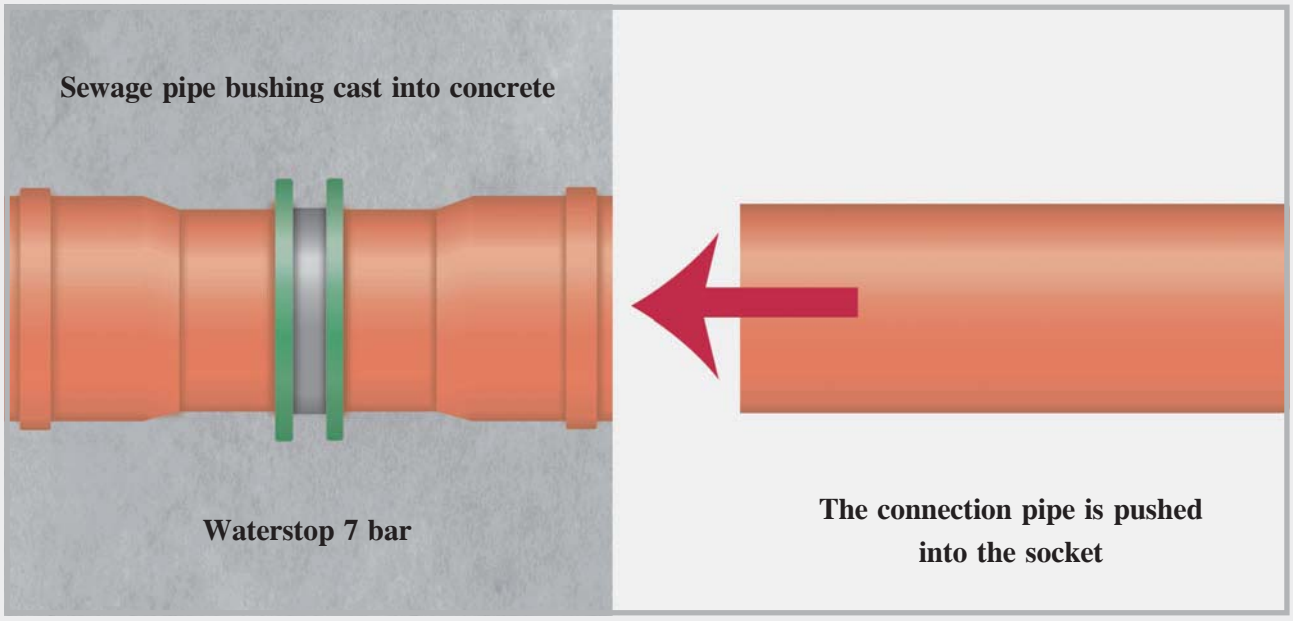
Other wall thicknesses available

Product range - KG 2000 double-socket sewage pipe

KG 2000-Ø DN mm	Wall thicknesses					
	200 mm	240 mm	250 mm	300 mm	365 mm	400 mm
DN 110	080750	080752	080754	080756	080758	080760
Weight/pc.	0.80 kg	0.85 kg	0.90 kg	1.10 kg	1.30 kg	1.40 kg
€/pc.	45.50	45.50	45.50	45.50	45.50	45.50
DN 125	080762	080764	080766	080768	080770	080772
Weight/pc.	1.10 kg	1.20 kg	1.20 kg	1.30 kg	1.50 kg	1.60 kg
€/pc.	54.90	54.90	54.90	54.90	54.90	54.90
DN 160	080774	080776	080778	080780	080782	080784
Weight/pc.	1.60 kg	1.80 kg	2.00 kg	2.30 kg	2.60 kg	2.80 kg
€/pc.	72.50	72.50	72.50	72.50	72.50	72.50
DN 200	080786	080788	080790	080792	080794	080796
Weight/pc.	2.80 kg	3.10 kg	3.20 kg	3.20 kg	3.70 kg	3.85 kg
€/pc.	94.00	94.00	94.00	94.00	94.00	94.00

Other wall thicknesses available

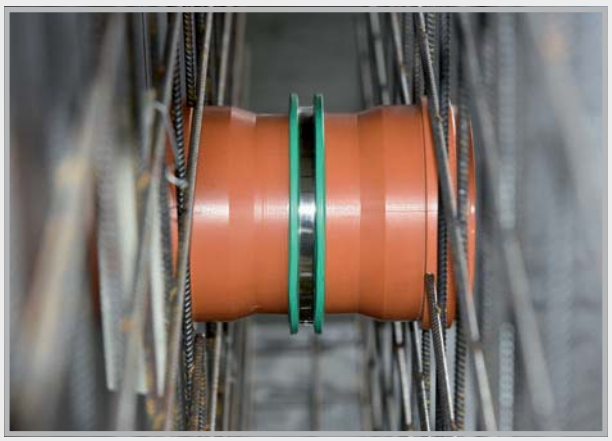
Function - double-socket sewage pipe



The double socket is cast into concrete. After concreting, the closure plugs are removed and the seals inserted. The next pipe can be connected.

At the construction site

Front view, pipe bushing installed



Side view in the formwork

Flow direction type

The flow direction types are manufactured in one piece for the corresponding wall thickness. You can also manufacture to any wall thickness yourself on the building site with a ground drain and socket ring. The FR type conveys the wastewater flow in one direction.

Product range - sewage pipe bushing, flow direction type

Sewage pipe Ø DN mm	Wall thicknesses						
	180 mm	200 mm	240 mm	250 mm	300 mm	365 mm	400 mm
DN 110	090710	090713	090716	090719	090722	090725	090728
Weight/pc.	0.75 kg	0.80 kg	0.90 kg	0.90 kg	1.00 kg	1.10 kg	1.20 kg
€/pc.	36.20	36.20	36.20	36.20	36.20	36.20	36.20
DN 125	090731	090734	090737	090740	090743	090749	090752
Weight/pc.	1.00 kg	1.00 kg	1.10 kg	1.10 kg	1.25 kg	1.45 kg	1.65 kg
€/pc.	40.40	40.40	40.40	40.40	40.40	40.40	40.40
DN 160	not	not	090758	090761	090764	090770	090773
Weight/pc.	producible	producible	1.85 kg	1.85 kg	2.05 kg	2.25 kg	2.50 kg
€/pc.			48.30	48.30	48.30	48.30	48.30
DN 200	not	not	090779	090782	090785	090788	090791
Weight/pc.	producible	producible	3.00 kg	3.00 kg	3.35 kg	3.60 kg	3.70 kg
€/pc.			67.50	67.50	67.50	67.50	67.50

Other wall thicknesses available

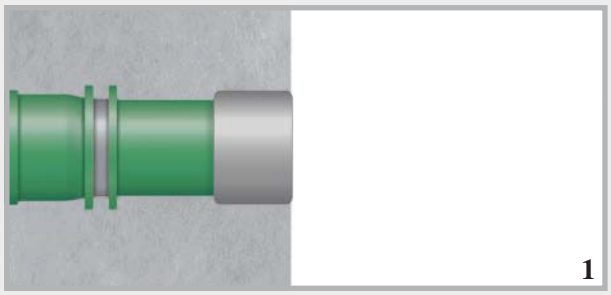
Product range - KG 2000 pipe bushing, flow direction type

KG 2000-Ø DN mm	Wall thicknesses					
	200 mm	240 mm	250 mm	300 mm	365 mm	400 mm
DN 110	080820	080825	080830	080835	080845	080850
Weight/pc.	0.80 kg	0.85 kg	0.90 kg	1.10 kg	1.30 kg	1.40 kg
€/pc.	41.90	41.90	41.90	41.90	41.90	41.90
DN 125	080855	080860	080865	080870	080880	080885
Weight/pc.	1.10 kg	1.20 kg	1.20 kg	1.30 kg	1.50 kg	1.60 kg
€/pc.	46.50	46.50	46.50	46.50	46.50	46.50
DN 160	not	080890	080895	080905	080915	080920
Weight/pc.	producible	1.80 kg	2.00 kg	2.30 kg	2.60 kg	2.80 kg
€/pc.		55.90	55.90	55.90	55.90	55.90
DN 200	not	080923	080925	080933	080935	080945
Weight/pc.	producible	3.10 kg	3.20 kg	3.20 kg	3.70 kg	3.85 kg
€/pc.		80.40	80.40	80.40	80.40	80.40

Other wall thicknesses available

Function - flow direction type

1. KG 2000 sewage pipe bushing type FR, concreted into the wall
2. The socket ring is removed before the next pipe is connected.
3. The next pipe is connected. The flow direction of the water is retained.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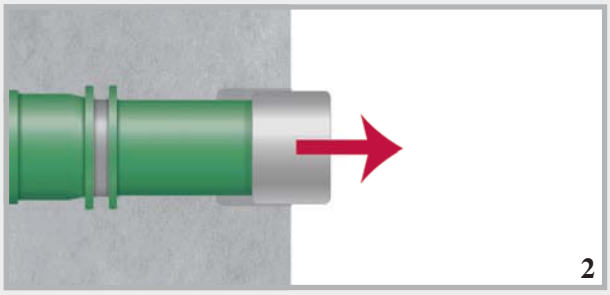
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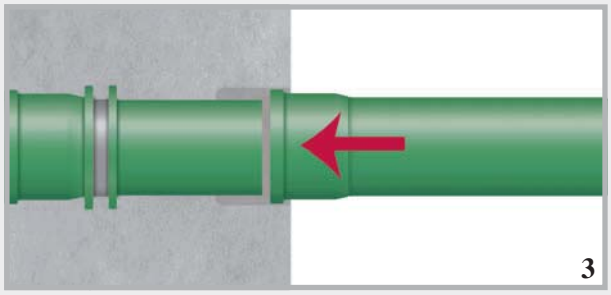
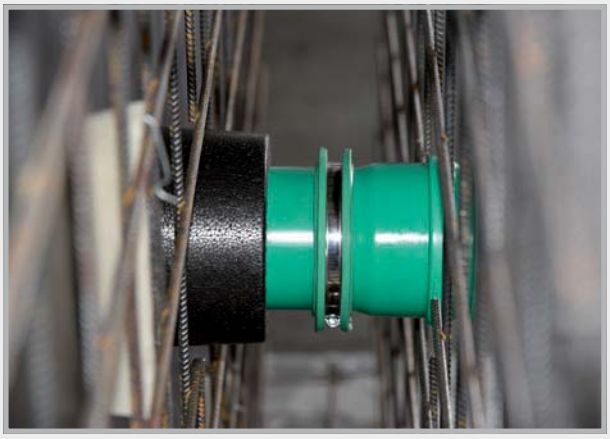

3

At the construction site

The socket ring is nailed on or, in the case of steel formwork, fastened with double-sided adhesive tape.

The pipe bushing is pushed in.

The plug (also supplied) is inserted.

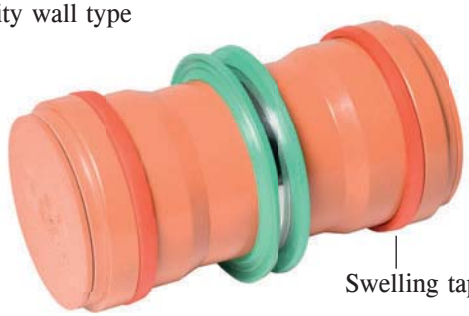


Ready for concrete placement.
Secure with binding wire.

Sewage pipe bushing, cavity wall type

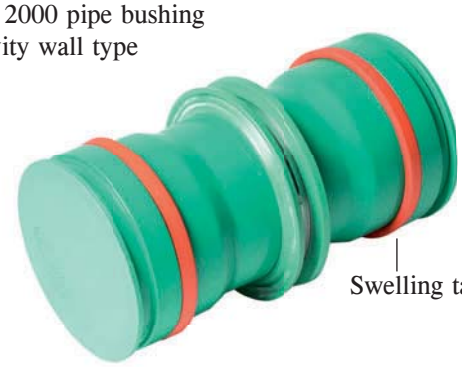
Special test for cavity walls

Sewage pipe bushing
Cavity wall type



Price available on request

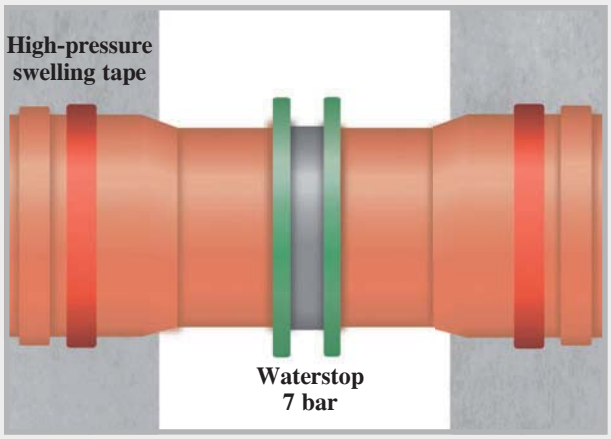
KG 2000 pipe bushing
Cavity wall type

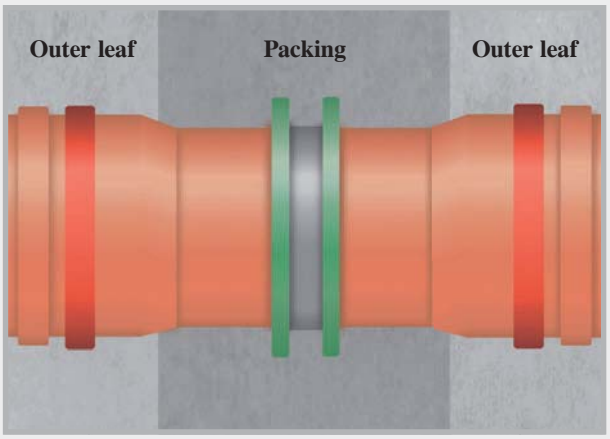


Price available on request

In addition to the waterstop in the centre, the cavity wall type has swelling tape on the left and right which form an additional seal.

Cavity wall installation type





Concreting complete

Universal type

The universal pipe bushing is supplied with an overall length of 40 cm. The pipe bushing can be shortened on-site to match the desired wall thickness.
Always supplied with plugs at both ends.

Product range - sewage pipe bushing, universal type
incl. plug (installation aid) and seal

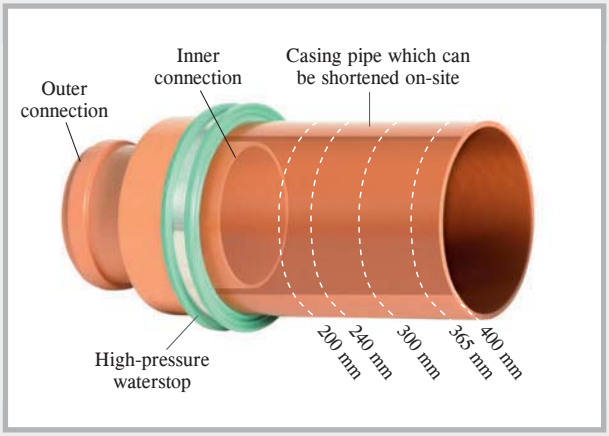
Art. No.	Type	Sewage pipe Ø DN mm	Element length cm	for wall thickness from to	Weight per pc./kg	**Price/pc. €**
160100	KGU 110	110	40	20 – 40 cm	1.95	**46.50**
160110	KGU 125	125	40	20 – 40 cm	2.00	**53.00**
160120	KGU 160	160	40	24 – 40 cm	3.10	**61.00**
160130	KGU 200	200	40	24 – 40 cm	4.25	**92.00**

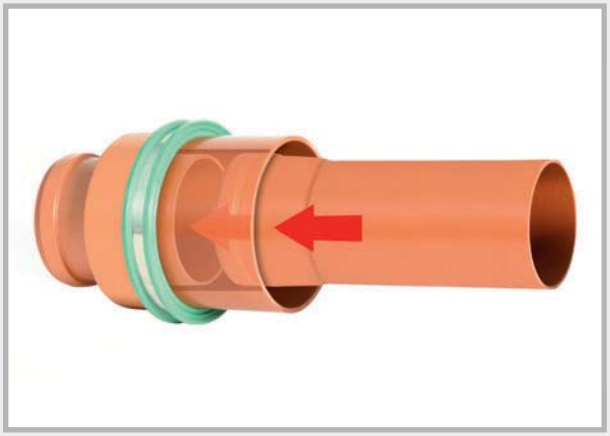
Product range - KG 2000 pipe bushing, universal
incl. plug (installation aid) and seal

Art. No.	Type	KG 2000-Ø DN mm	Element length cm	for wall thickness from to	Weight per pc./kg	**Price/pc. €**
161100	KG2000 U110	110	40	20 – 40 cm	1.70	**65.00**
161110	KG2000 U125	125	40	20 – 40 cm	1.80	**71.50**
161120	KG2000 U160	160	40	24 – 40 cm	2.80	**92.50**

Function

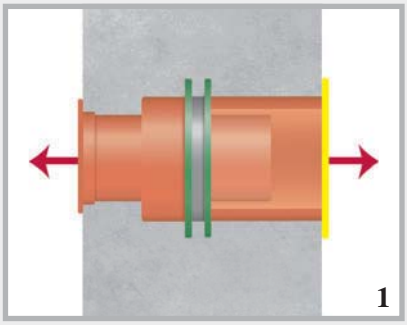
The illustration shows how the connection works. As the socket is pushed onto the spigot end, the flow of water is not interrupted.



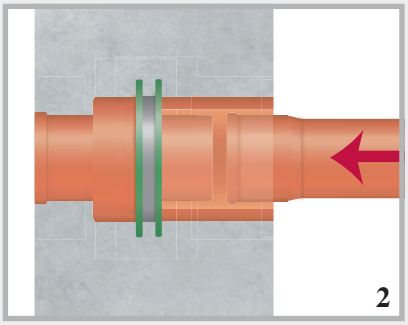


The casing pipe can be shortened on-site to match the desired wall thickness.

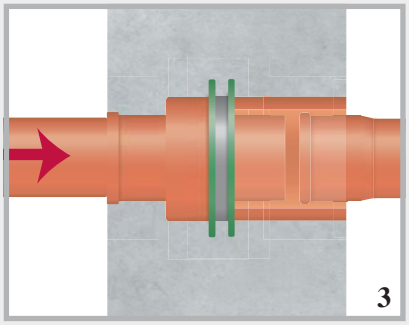
Installation



The universal pipe bushing is manufactured to match the corresponding wall thickness.
It is sealed with plugs on the left and right.



The plugs are removed following placement of the concrete.



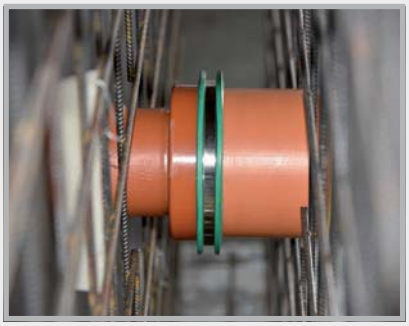
The connection pipes can be continued to the left and right. The flow direction of the water is retained.

We will shorten the Universal sewage pipe bushing for you to suit the required wall thickness.

At the construction site

Universal in the formwork

Universal with plug fitted



Ready for concrete placement
Secure with binding wire

Ground drains

Sewage ground drains – solid wall pipes

Sewage pipe, 0.5 m long, with waterstop and socket on one end

Art. No.	Type	Sewage pipe Ø DN mm	Length mm	Weight kg	**Price/pc. €**
080460	DL 110/500	110	500	1.15	**20.40**
080465	DL 125/500	125	500	1.60	**24.30**
080470	DL 160/500	160	500	2.45	**28.40**
080475	DL 200/500	200	500	3.85	**36.70**

Sewage ground drains with foil flange – solid wall pipes

Sewage pipe, 0.5 m long, with waterstop and socket on one end

Art. No.	Type	Sewage pipe Ø DN mm	Length mm	Weight kg	**Price/pc. €**
080451	DLF 110/500	110	500	1.70	**57.80**
080452	DLF 125/500	125	500	2.15	**63.60**
080454	DLF 160/500	160	500	3.00	**72.10**
080456	DLF 200/500	200	500	4.40	**83.50**

Foil flange made of PVC foil 1.5 mm, size: 50 x 50 cm,
weldable with hot air gun, bondable with solvent welding agent, resistant to oil and bitumen

KG 2000 ground drains

KG 2000 pipe, 0.5 m long, with waterstop and socket on one end

Art. No.	Type	KG 2000-Ø DN mm	Length mm	Weight kg	**Price/pc. €**
080980	DL2000 110/500	110	500	1.20	**29.90**
080983	DL2000 125/500	125	500	1.50	**33.90**
080986	DL2000 160/500	160	500	2.40	**41.40**
080989	DL2000 200/500	200	500	3.80	**51.90**

KG 2000 ground drains with foil flange

KG 2000 pipe, 0.5 m long, with waterstop and socket on one end

Art. No.	Type	KG 2000-Ø DN mm	Length mm	Weight kg	**Price/pc. €**
080992	DLF2000 110/500	110	500	1.70	**63.90**
080994	DLF2000 125/500	125	500	2.00	**73.10**
080996	DLF2000 160/500	160	500	2.90	**84.30**
080998	DLF2000 200/500	200	500	4.20	**97.50**

Foil flange made of PVC foil, 1.5 mm,
Size: 50 x 50 cm,
weldable with hot air gun,
bondable with solvent welding agent
Resistant to oil and bitumen

At the construction site

SINKO ground drains

SINKO-Flex

Ground drain for use in indoor areas without vehicular traffic

Material: Polypropylene, highly impact-resistant
Load class: K3 can withstand loads up to max. 300 kg, polyamide grid
Drainage output: 1.7 l/s to DIN EN 1253
Specification: Drain body with removable drain trap
Dirt trap and protective cover for duration of construction
Top section 150 x 150 mm, height infinitely adjustable between 30 and 70 mm
Connection with DN 50 or DN 110 vertical sewage/high-temperature pipe

Art. No.	Presentation	Packaging per pack	Weight kg	**Price/pc. €**
091200	**SINKO-Flex** Solo	1	1.10	**60.90**
091205	**SINKO-Flex** with waterstop	1	1.30	**72.90**
091210	**SINKO-Flex** with foil flange PVC foil 1.5 mm, 50 x 50 cm foil weldable with hot air gun, bondable with solvent welding agent, resistant to oil and bitumen	1	1.20	**79.50**
091215	**SINKO-Flex** with waterstop and foil flange, PVC foil 1.5 mm 50 x 50 cm, foil weldable with hot air gun, bondable with solvent welding agent, resistant to oil and bitumen	1	1.40	**102.50**
091220	**Stainless steel grate** for SINKO-Flex 150 x 150 mm	1	0.23	**32.50**

SINKO house and courtyard drain

with vertical drainage
for use indoors and outdoors

Material: ABS, traffic-bearing up to 1.5 t
Drainage output: 1.4 l/s
Specification: Plastic grate and drain trap
Connection with DN 75 or DN 110 vertical sewage/high-temperature pipe

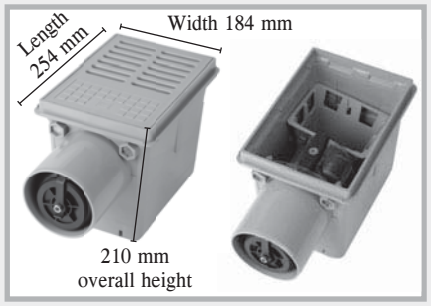
Vertical drain with combi-connection DN 75 and DN 100

Art. No.	Presentation	Packaging per pack	Weight kg	**Price/pc. €**
091150	**SINKO house and courtyard drain** vertical connection	1	0.85	**43.90**

SINKO cellar drain

with triple anti-flooding valve

Material: ABS
Drainage output: 1.9 l/s
Specification: Plastic grate, drain trap, sludge bucket and manually operable trap body
DN 110 lateral connection

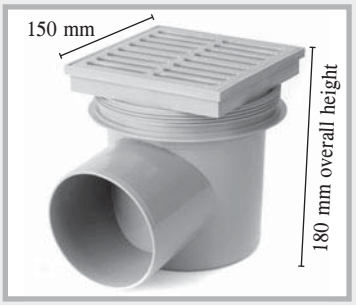


Art. No.	Presentation	Packaging per pack	Weight kg	**Price/pc. €**
091160	**Cellar drain with triple anti-flooding valve** drain trap, sludge bucket and cleaning eye	1	2.50 kg	**163.00**
091165	**Adaptor** for height adjustment from 20 to 100 mm	1	1.24 kg	**46.50**
091180	**Plastic grate** made of ABS	1	0.27 kg	**19.70**

SINKO house and courtyard drain

with lateral drainage

Material: Polypropylene housing, plastic grate made of ABS
Drainage output: 1.6 l/s
Specification: With rotatable plastic grate made of ABS, removable drain trap and sludge bucket
DN 110 lateral connection



Art. No.	Presentation	Packaging per pack	Weight kg	**Price/pc. €**
091100	**House and courtyard drain with lateral drainage** with rotatable plastic grate drain trap and sludge bucket can withstand loads up to 300 kg	1	0.71 kg	**44.60**
091105	**Adaptor** for article 091100 for height adjustment between 20 and 100 mm	1	0.15 kg	**17.70**
091110	**Stainless steel grate 150 x 150 mm**	1	0.23 kg	**15.40**
091115	**Plastic grate 150 x 150 mm**	1	0.15 kg	**10.10**
091120	**Sludge bucket**	1	0.05 kg	**7.30**
091125	**Drain trap**	1	0.14 kg	**7.40**

MASTER-RING

Stainless steel V2A gasket inserts

Gasket inserts for lining pipes and core drill holes

- One seal against pressurised and non-pressurised water
- Pressure-tight up to 30 m water column, in fixed and secure position up to 50 m
- Rubber thickness 40 mm
- Temperature range -30°C to +120°C
- Steel parts and screws made of V2A stainless steel

Installation: Once the gasket insert has been inserted and the medium pipe has been led through, the screws are tightened crosswise. Give each screw one turn and repeat this procedure several times so the rubber is pressed out uniformly. Maximum torque M6 = 5 Nm, M8 = 10 Nm, M10 = 15 Nm, M12 = 20 Nm. Retighten the nuts after 2–3 hours.

Core drill hole mm Lining pipe FASO/ WELLO/DURO Plus	Art. No.	Medium pipe in mm from	to	Pcs. per pack	Weight per pc.	**Price/pc. €**
50	**120080**	6	12	1	0.38 kg	**42.60**
80	**120100**	20	28	1	0.41 kg	**46.90**
80	**120105**	32	40	1	0.42 kg	**46.90**
100	**120110**	20	28	1	0.59 kg	**50.90**
100	**120112**	25	32	1	0.59 kg	**50.90**
100	**120115**	32	40	1	0.64 kg	**50.90**
100	**120120**	36	44	1	0.64 kg	**50.90**
100	**120125**	46	56	1	0.54 kg	**50.90**
100	**120130**	55	65	1	0.52 kg	**50.90**
125	**120145**	55	64	1	0.84 kg	**64.90**
125	**120150**	70	78	1	0.75 kg	**64.90**
150	**120152**	46	54	1	1.37 kg	**80.00**
150	**120153**	56	66	1	1.32 kg	**80.00**
150	**120155**	69	78	1	1.22 kg	**80.00**
150	**120160**	79	91	1	1.18 kg	**80.00**
150	**120165**	85	94	1	1.07 kg	**80.00**
150	**120170**	98	110	1	0.96 kg	**80.00**
200	**120172**	88	103	1	2.00 kg	**101.80**
200	**120175**	108	115	1	1.96 kg	**101.80**
200	**120180**	116	126	1	1.88 kg	**101.80**
200	**120185**	132	141	1	1.63 kg	**101.80**
200	**120190**	135	144	1	1.46 kg	**101.80**
200	**120192**	150	160	1	1.40 kg	**101.80**
250	**120195**	135	144	1	2.90 kg	**154.00**
250	**120197**	140	149	1	2.90 kg	**154.00**
250	**120200**	150	159	1	2.60 kg	**154.00**
250	**120205**	157	162	1	2.60 kg	**154.00**
250	**120210**	174	181	1	2.55 kg	**154.00**
250	**120215**	178	187	1	2.15 kg	**154.00**
250	**120216**	197	202	1	2.10 kg	**154.00**
250	**120218**	204	210	1	2.05 kg	**154.00**
300	**120225**	193	204	1	3.50 kg	**188.00**
300	**120230**	218	226	1	3.15 kg	**188.00**
350	**120235**	224	233	1	5.25 kg	**293.00**
350	**120240**	249	258	1	4.85 kg	**293.00**
350	**120242**	270	282	1	4.55 kg	**293.00**
400	**120245**	270	280	1	5.70 kg	**384.00**
400	**120250**	279	288	1	5.65 kg	**384.00**
400	**120255**	304	313	1	5.10 kg	**384.00**
400	**120260**	314	323	1	4.60 kg	**384.00**
400	**120265**	320	330	1	4.20 kg	**384.00**

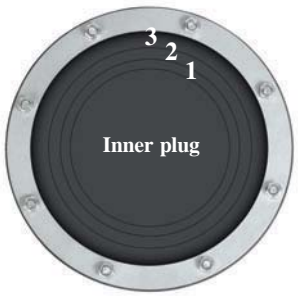
Additional supply options: Steel parts and screws made of A4 stainless steel
Rubber made of NBR rubber, or suitable for use in contact with drinking water

MASTER-RING Multi

Gasket inserts with “onion ring” technology

18 installation options with only 3 sizes

YouTube INSTALLATION FILM

			
	MASTER-RING Multi 100 **Art. no. 120 135** Medium pipe in mm from to	MASTER-RING Multi 150 **Art. no. 120 171** Medium pipe	MASTER-RING Multi 200 **Art. no. 120 193** Medium pipe
After removing the inner plug	18 – 20 mm	63 mm	110 mm
1st ring	21 – 25 mm	76 mm	125 mm
2nd ring	26 – 30 mm	90 mm	140 mm
3rd ring	31 – 35 mm	110 mm	160 mm
4th ring	36 – 40 mm		
5th ring	41 – 45 mm		
6th ring	46 – 50 mm		
7th ring	51 – 55 mm		
8th ring	56 – 60 mm		
9th ring	61 – 65 mm		
Weight/pc.	0.64 kg	1.35 kg	2.20 kg
Price/pc. €	**55.90**	**87.80**	**115.90**

Product description of MASTER-RING Multi

Pressure resistant:	30 metre water column = 3 bar
Pressure plate material:	V2A
Screws and nuts:	V2A
Design:	Closed ring
Rubber material:	EPDM
Width of rubber:	40 mm
Temperature range:	-30°C to +120°C
Resistances:	Excellent resistance to ageing, weathering and ozone

Installation of MASTER-RING Multi

Once you have determined the outer diameter of the pipe to be waterproofed, prepare the MASTER-RING Multi for installation.

Example: Multi 100

Example for DN 100 core drill hole and medium pipe outer diameter 18 mm

Only remove the inner plug

Example for DN 100 core drill hole and medium pipe outer diameter 23 mm

After removing the inner plug, release the first ring …

… and push it through the gasket insert.

Pushed-through 1st ring

Simply cut off the pushed-through ring using a cutter

Multi 100 ready for installation

Example: Multi 200

Example for DN 200 core drill hole and medium pipe outer diameter 110 mm

Only remove the inner plug

Example for DN 200 core drill hole and medium pipe outer diameter 125 mm

Release the first ring and push it through the gasket

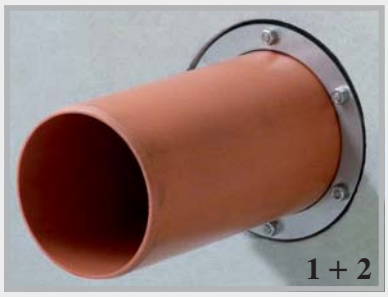
Cut off the pushed-through ring using a cutter – the gasket is now ready for installation.

Tightening the MASTER-RING Multi

All 3 types of screw should be tightened to a torque of 5 Nm.

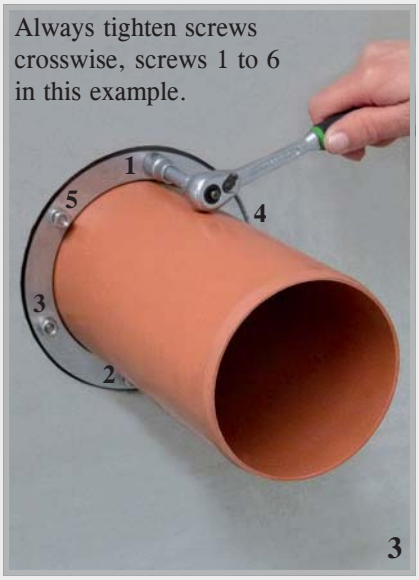
1. Insert the gasket insert into the lining pipe or the core drill hole.

2. Push the medium pipe through



3. Tighten the screws crosswise through one turn. Repeat this process until all screws are tightened to 5 Nm. Retighten the screws after 24 hours.

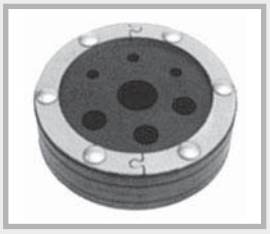
Always tighten screws crosswise, screws 1 to 6 in this example.



MASTER-RING Multiple

V2A stainless steel multiple wall duct gasket inserts for cables and pipes

- Pressure-tight up to 10 m water column
- Rubber thickness 40 mm
- Steel parts and screws made of V2A stainless steel



Split version

Mounted

Core drill hole Lining pipe FASO/ WELLO/DURO Plus	Art. No.	Cable outer diameter mm	Pipe outer diameter mm	Weight per pc.	**Price/pc. € incl. 2 boreholes**
50	**120515**	4 - 20		0.39	**81.60**
80	**120410**	4 - 33	40 + 42	0.43	**95.70**
100	**120415**	4 - 33	40 + 42 + 50	0.62	**104.10**
125	**120420**	4 - 33	40 + 42 + 50	0.93	**139.00**
150	**120425**	4 - 33	40 + 42 + 50	1.31	**174.00**
	120495	Additional borehole			**12.00**

MASTER-RING Multiple Standard

Stock item with 7 standard boreholes, stainless steel V2A

Split version

Core drill hole Lining pipe FASO/ WELLO/DURO Plus	Art. No.	Design	Weight per pc.	**Price/pc. €**
100	**120417**	7 standard boreholes 1x8 mm 2x10 mm 1x12 mm 1x14 mm 1x16 mm 1x18 mm	0.60	**103.70**

Stainless steel V2A blind plugs

for core drill hole and lining pipe

- Pressure-tight
  80 – 200 mm = 30 m water column
  250 – 300 mm = 10 m water column
- Rubber thickness 40 mm
- Steel parts and screws made of V2A stainless steel

DN	Art. No.	Pcs. per pack	Weight / kg	**Price/pc. €**
80	**120520**	1	0.49	**55.20**
100	**120525**	1	0.75	**61.00**
125	**120530**	1	1.25	**71.30**
150	**120535**	1	2.10	**84.50**
200	**120540**	1	3.40	**112.00**
250	**120545**	1	6.10	**376.00**
300	**120550**	1	8.80	**526.00**

Blind plugs up to DN 1500 mm available on request

Special versions
MASTER-RING split

Split version **Price on request**

Mounting the split version

MASTER-RING soft

for corrugated pipes and pipes with sensitive outer shell

Rubber 2 x 40 mm **Price on request**

Installation of MASTER-RING soft

Protection of the core drill hole with epoxy resin

- PROTECT EP resin ensures lasting preservation of the core drill hole
- Application on dry substrate

Art. No.	Presentation	Packaging	Weight/kg	**Price/l €**
040020	PROTECT EP resin Epoxy resin	800 ml component A 200 ml component B	1.30 kg per set	**25.20**

Dusting of the core drill hole

Applying PROTECT EP resin

Permanently protected by PROTECT EP resin

MASTER-SEAL
Modular seal

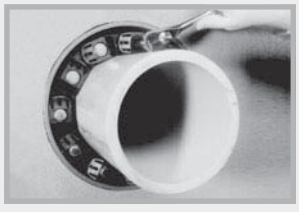
- Preassembled
- Fast and easy installation
- Tested up to 30 m water column
- Can be retrofitted (all gasket inserts are also separable)

YouTube INSTALLATION FILM

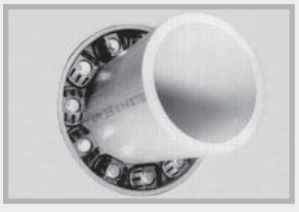
Area of installation of core drill hole in mm Lining pipe FASO/ WELLO/DURO Plus	Medium pipe outer Ø mm from	to	Number of links	Weight kg	Stainless steel Art. No.	**Price/pc. €**	Galvanised Art. No.	**Price/pc. €**
50	11	19	4 x 275	0.08 kg	**110250**	**21.40**	**110600**	**14.60**
50	20	25	4 x 200	0.08 kg	**110255**	**11.40**	**110605**	**10.60**
80	20	33	4 x 350	0.32 kg	**110260**	**35.60**	**110610**	**26.20**
80	34	44	5 x 300	0.30 kg	**110265**	**30.25**	**110615**	**25.75**
80	45	49	6 x 250	0.14 kg	**110267**	**30.00**	**110617**	**23.10**
80	50	55	7 x 200	0.14 kg	**110268**	**19.95**	**110618**	**18.55**
100	27	38	4 x 375	0.52 kg	**110270**	**46.60**	**110620**	**31.60**
100	39	50	6 x 350	0.48 kg	**110275**	**53.40**	**110625**	**39.30**
100	56	64	6 x 300	0.36 kg	**110280**	**36.30**	**110630**	**30.90**
100	65	69	8 x 250	0.16 kg	**110281**	**40.00**	**110631**	**30.80**
100	70	75	9 x 200	0.18 kg	**110282**	**25.65**	**110632**	**23.85**
125	41	44	4 x 475	1.04 kg	**110283**	**80.80**	**110633**	**53.00**
125	45	52	4 x 415	0.96 kg	**110284**	**55.40**	**110634**	**40.00**
125	53	63	5 x 375	0.65 kg	**110285**	**58.25**	**110635**	**39.50**
125	64	78	7 x 350	0.56 kg	**110290**	**62.30**	**110640**	**45.85**
125	79	90	8 x 300	0.48 kg	**110295**	**48.40**	**110645**	**41.20**
125	90	94	11 x 250	0.22 kg	**110296**	**55.00**	**110646**	**42.35**
125	96	100	11 x 200	0.22 kg	**110297**	**31.35**	**110647**	**29.15**
150	58	69	5 x 475	1.30 kg	**110298**	**101.00**	**110648**	**66.25**
150	63	76	5 x 415	1.20 kg	**110300**	**69.25**	**110650**	**50.00**
150	75	82	6 x 375	0.75 kg	**110305**	**69.90**	**110655**	**47.40**
150	88	103	9 x 350	0.68 kg	**110310**	**80.10**	**110660**	**58.95**
150	106	115	10 x 300	0.60 kg	**110315**	**60.50**	**110665**	**51.50**
150	113	118	14 x 250	0.28 kg	**110316**	**70.00**	**110666**	**53.90**
150	120	124	14 x 200	0.28 kg	**110317**	**39.90**	**110667**	**37.10**
200	88	107	6 x 575	2.50 kg	**110320**	**180.90**	**110670**	**117.30**
200	108	118	7 x 475	1.82 kg	**110325**	**141.40**	**110675**	**92.75**
200	115	122	7 x 415	1.68 kg	**110330**	**96.95**	**110680**	**70.00**
200	125	138	9 x 375	1.17 kg	**110335**	**104.85**	**110685**	**71.10**
200	140	153	13 x 350	0.98 kg	**110340**	**115.70**	**110690**	**85.15**
200	156	165	14 x 300	0.84 kg	**110345**	**84.70**	**110695**	**72.10**
200	164	168	19 x 250	0.38 kg	**110346**	**95.00**	**110696**	**73.15**
200	171	174	19 x 200	0.38 kg	**110347**	**54.15**	**110697**	**50.35**

Place MASTER-SEAL around the medium pipe and seal

Push MASTER-SEAL into the annular gap



Tighten each screw one by one in a circular direction by turning once until all modules are evenly tightened.



MASTER-SEAL installation complete

MASTER-SEAL
Modular seal

Area of installation of core drill hole in mm Lining pipe FASO/ WELLO/DURO Plus	Medium pipe outer Ø mm from	to	Number of links	Weight kg	Stainless steel Art. No.	**Price/pc. €**	Galvanised Art. No.	**Price/pc. €**
250	114	130	6 x 500	3.72 kg	**110350**	**224.70**	**110700**	**153.00**
250	137	158	8 x 575	3.32 kg	**110355**	**241.20**	**110705**	**156.40**
250	159	166	9 x 475	2.34 kg	**110360**	**181.80**	**110710**	**119.25**
250	166	178	7 x 400	2.17 kg	**110365**	**118.65**	**110715**	**98.00**
250	178	185	12 x 375	1.50 kg	**110370**	**139.80**	**110720**	**94.80**
250	182	189	7 x 425	1.75 kg	**110371**	**142.45**	**110721**	**94.85**
250	192	200	17 x 350	1.28 kg	**110372**	**151.30**	**110722**	**111.35**
250	194	202	9 x 325	1.22 kg	**110373**	**109.80**	**110723**	**72.90**
250	208	213	18 x 300	1.08 kg	**110374**	**108.90**	**110724**	**92.70**
300	188	204	10 x 575	4.18 kg	**110375**	**301.50**	**110725**	**195.50**
300	206	217	12 x 475	3.12 kg	**110380**	**242.40**	**110730**	**159.00**
300	215	226	12 x 415	2.88 kg	**110385**	**166.20**	**110735**	**120.00**
300	228	236	15 x 375	1.88 kg	**110386**	**174.75**	**110736**	**118.50**
300	232	242	9 x 425	2.25 kg	**110387**	**183.15**	**110737**	**121.95**
300	244	253	11 x 325	1.49 kg	**110388**	**134.20**	**110738**	**89.10**
300	258	263	22 x 300	1.32 kg	**110389**	**133.10**	**110739**	**113.30**
350	219	231	9 x 500	5.58 kg	**110390**	**337.05**	**110740**	**229.50**
350	239	253	12 x 575	4.98 kg	**110395**	**361.80**	**110745**	**234.60**
350	265	275	14 x 415	3.36 kg	**110400**	**193.90**	**110750**	**140.00**
350	276	286	18 x 375	2.25 kg	**110405**	**209.70**	**110755**	**142.20**
350	314	317	35 x 250	0.70 kg	**110408**	**175.00**	**110758**	**134.75**
400	239	256	10 x 650	9.50 kg	**110410**	**511.00**	**110760**	**374.50**
400	265	274	11 x 500	6.82 kg	**110415**	**411.95**	**110765**	**280.50**
400	314	328	12 x 400	3.66 kg	**110420**	**203.40**	**110770**	**168.00**
400	343	350	15 x 325	2.03 kg	**110425**	**183.00**	**110775**	**118.50**
450	358	370	19 x 475	4.94 kg	**110430**	**383.80**	**110780**	**251.75**
450	366	379	14 x 400	4.27 kg	**110435**	**237.30**	**110785**	**196.00**
450	393	405	17 x 325	2.30 kg	**110440**	**207.40**	**110790**	**137.70**
500	311	326	8 x 600	14.56 kg	**110443**	**503.20**	**110793**	**342.00**
500	340	358	13 x 650	12.38 kg	**110445**	**664.30**	**110795**	**486.85**
500	390	407	18 x 575	7.47 kg	**110450**	**542.70**	**110800**	**351.90**
500	409	419	21 x 475	5.46 kg	**110455**	**424.20**	**110805**	**278.25**
550	390	408	14 x 650	13.30 kg	**110460**	**715.40**	**110810**	**524.30**
550	415	435	15 x 500	9.30 kg	**110465**	**561.75**	**110815**	**382.50**
550	440	457	20 x 575	8.30 kg	**110470**	**603.00**	**110820**	**391.00**
550	457	470	23 x 475	5.98 kg	**110475**	**464.60**	**110825**	**304.75**
600	410	440	10 x 600	18.20 kg	**110480**	**629.00**	**110830**	**427.50**
600	440	458	16 x 650	15.20 kg	**110485**	**817.60**	**110835**	**599.20**
600	490	505	22 x 575	9.13 kg	**110490**	**663.30**	**110840**	**430.10**
600	515	528	19 x 400	5.80 kg	**110495**	**322.05**	**110845**	**266.00**

Additional sizes available immediately ex stock

Installation: After insertion of the modular seal and lead-through of the medium pipe, the screws are tightened one by one in a clockwise direction. Give each screw one turn and repeat this procedure several times so the rubber is pressed out uniformly.

Maximum torques	TYPE						
	200/250/275	3 Nm	500/525	60 Nm	650	85 Nm
	300/325/350/375	15 Nm	575	50 Nm	600	130 Nm
	400/415/425/475	35 Nm				

FLEX 2000

Plastic, vapour and waterproof sealing compound for waterproofing of pipe and cable ducts below ground level. Also suitable for leakage sealing in case of inflowing water.

Annular gap sealing (tested by MFPA Leipzig) up to 7.5 m water column

Art. No.	Description	Pcs. per pack	Weight kg	**Price €**
120610	**Flex 2000 sealing compound** cartridge 850 g	20 cartridges/ Carton	0.94 kg	**43.20**
120620	**Cartridge applicator** with flexible nozzle	1	1.07 kg	**118.00**
120630	**Flexible nozzle**	1	0.06 kg	**49.90**

Flex 2000 sealing compound

Cartridge applicator

Flexible nozzle

Technical data

Consistency	Paste-like, non-sagging
Heat resistance	+50°C
Processing temperature	+5°C to +35°C
Usage	Approx. 1.6 kg per litre void
Storage	2 years at 20°C

Substrate

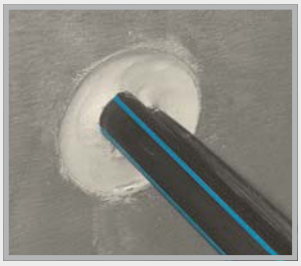
The substrate may be dry, damp or wet. The substrate must be free from grease, tar, oil and loose particles. Suitable substrates are: concrete, brick, mortar, plaster and all other mineral construction materials as well as ceramics, PVC, polyethylene and polypropylene.

Inflowing water

Injection of Flex 2000

Filling of the annular gap

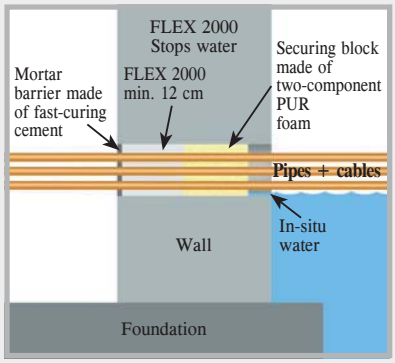
No more leakage


Smooth off excess material with a filling knife

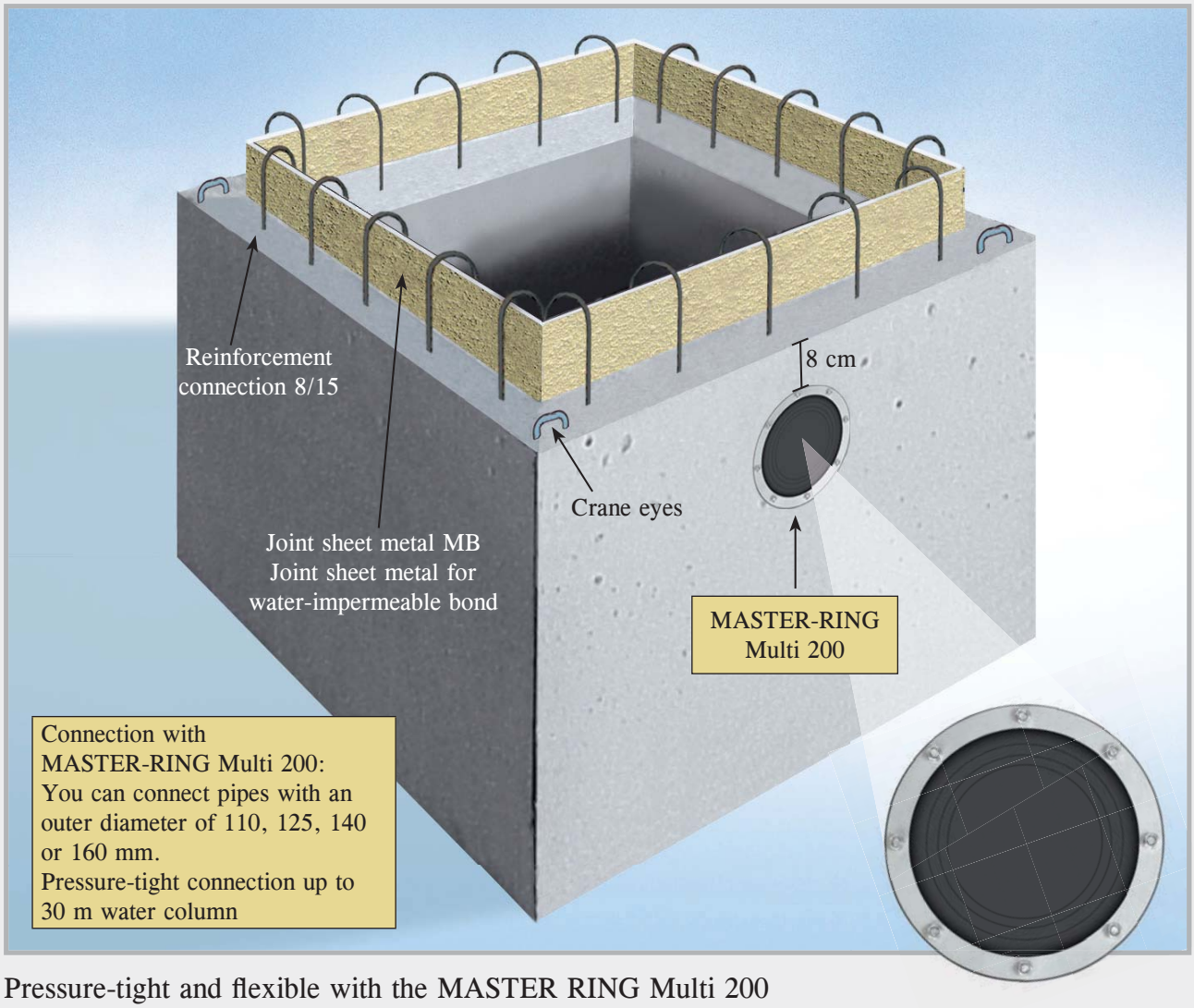
Skim coat with fast-curing cement

Application

Prior to application, Flex 2000 is heated by placing it in warm water for at least 30 minutes to approx. 35–40°C to ensure optimum consistency and workability. Clean the inside of the duct using a suitable brush to remove dust, sand, and any loose particles. Before applying Flex 2000, a securing block of a two-component PUR foam is applied at a depth of approx. 10 cm. The Flex 2000 cartridge is then placed in the cartridge applicator and the material is pressed through the flexible nozzle into the duct from back to front so that the resulting layer is at least 12 cm thick. After sealing cable ducts, jiggle the cable slightly and press Flex 2000 into any voids that form. Always ensure that the cable is free of tension and strain after sealing. Finally, the sealing compound set back approx. 1 cm is pressed in well and smoothed with a metal filler knife. As an additional safeguard, the opening of the duct is closed with fast-curing cement. If a new cable is to be installed later on, the mortar barrier is removed and the cable is pushed through the sealing compound. The duct is subsequently sealed using Flex 2000.



PILO
Pump sump Multi "Standard"



Pressure-tight and flexible with the MASTER RING Multi 200

The PILO pump sump is a precast concrete part made of water-impermeable concrete C 35/45.

- reduces the construction time
- eliminates difficult shuttering
- easy installation
- manufactured from water-impermeable concrete
- watertight connection thanks to use of MPA-tested joint sheet metal
- Connection reinforcement
- Crane eyes

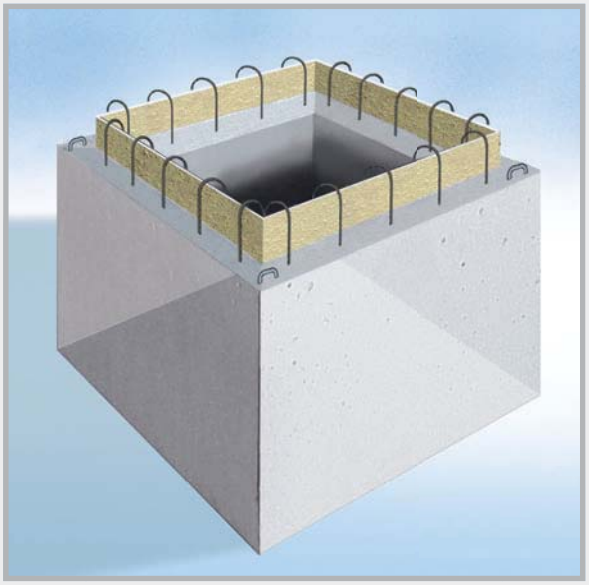
Sizes of PILO pump sump Multi "Standard"

Art. No.	Inner dimensions W x L x H cm	Wall thickness cm	Weight kg	Outer dimensions W x L x H cm	Availability	**Price/pc. €**
090450	60 x 60 x 60	12	approx. 730	84 x 84 x 72	ex stock	**509.00**
090452	80 x 80 x 80	12	approx. 1320	104 x 104 x 92	ex stock	**697.00**
090454	100 x 100 x 80	12	approx. 1640	124 x 124 x 92	ex stock	**815.00**
090456	120 x 120 x 80	12	approx. 2050	144 x 144 x 92	ex stock	**1025.00**

PILO
Pump sump "Spezial"

- water-impermeable concrete C35/45
- with joint sheet metal MB
- Connection reinforcement

The PILO pump sump "Spezial" has no borehole. These are made at the last minute according to your specifications.

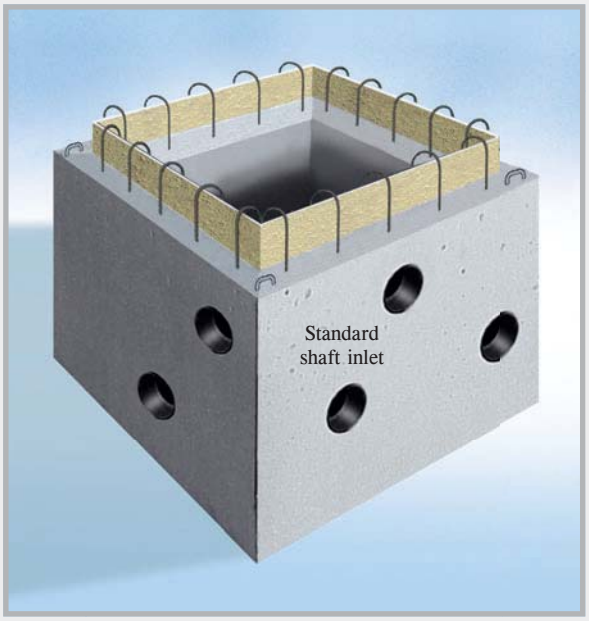


Sizes of PILO pump sump without borehole

Art. No.	Inner dimensions W x L x H cm	Wall thickness cm	Weight kg	Outer dimensions W x L x H cm	Availability	**Price/pc. €**
090443	60 x 60 x 60	12	approx. 730	84 x 84 x 72	ex stock	**499.00**
090445	80 x 80 x 80	12	approx. 1320	104 x 104 x 92	ex stock	**687.00**
090447	100 x 100 x 80	12	approx. 1640	124 x 124 x 92	ex stock	**805.00**
090449	120 x 120 x 80	12	approx. 2050	144 x 144 x 92	ex stock	**1015.00**

Boreholes

Art. No.		**Price/pc. €**
090440	**Core drill hole DN 200, flexible** connection 110, 115,140 and 160 mm, incl. MASTER-RING Multi DN 200	**129.00**
090430	Connection for sewage pipe DN 110 incl. connection seal	**69.00**
090432	Additional connection for sewage pipe DN 125 incl. connection seal	**74.00**
090433	Additional connection for sewage pipe DN 160 incl. connection seal	**79.00**
090436	Additional connection for sewage pipe DN 200 incl. connection seal	**91.00**

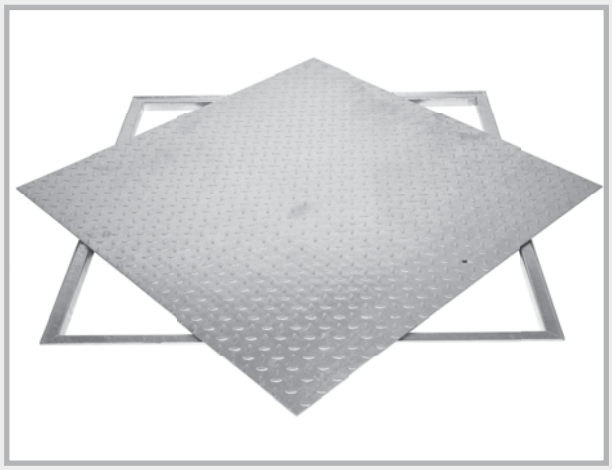


The connection bores are made according to your specifications.
The options are listed in the table.

Shaft cover for pump sump

walkable

Frame and cover galvanised,
with 1 borehole as lifting opening

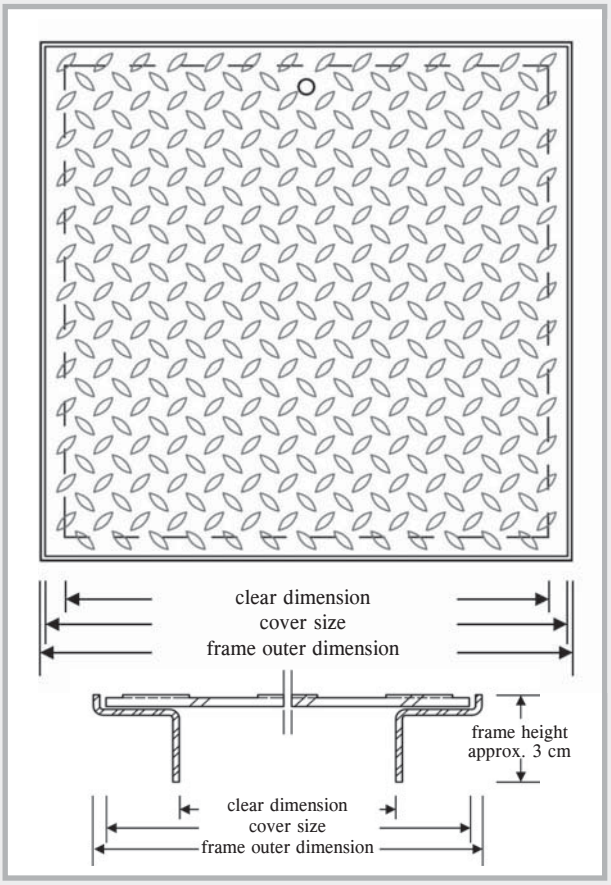


walkable

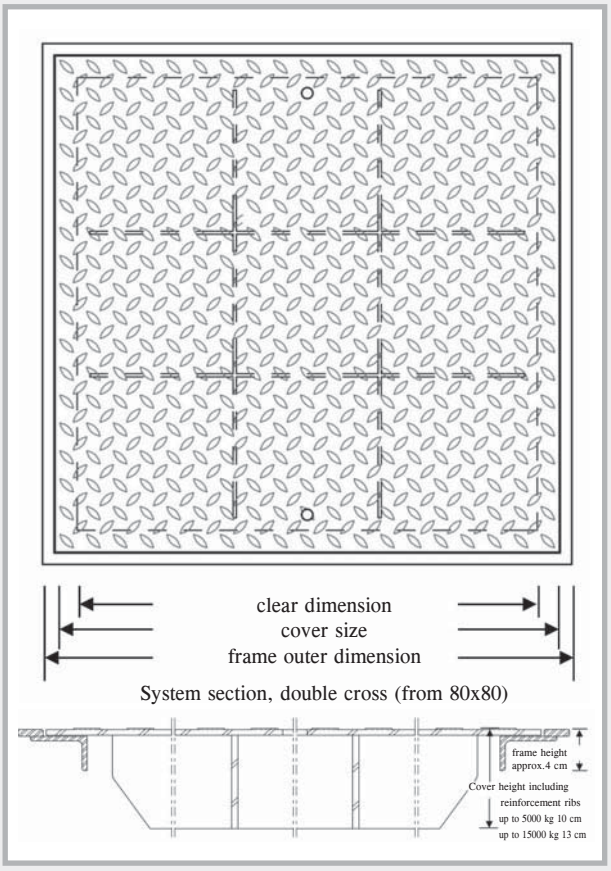
can be bolted down tightly to exclude surface water and odours, galvanised frame and cover, EPDM cellular-rubber seal in frame, boltable cover

traffic-bearing, galvanised

Dimensions, walkable



Dimensions, traffic-bearing



Shaft cover for pump sump

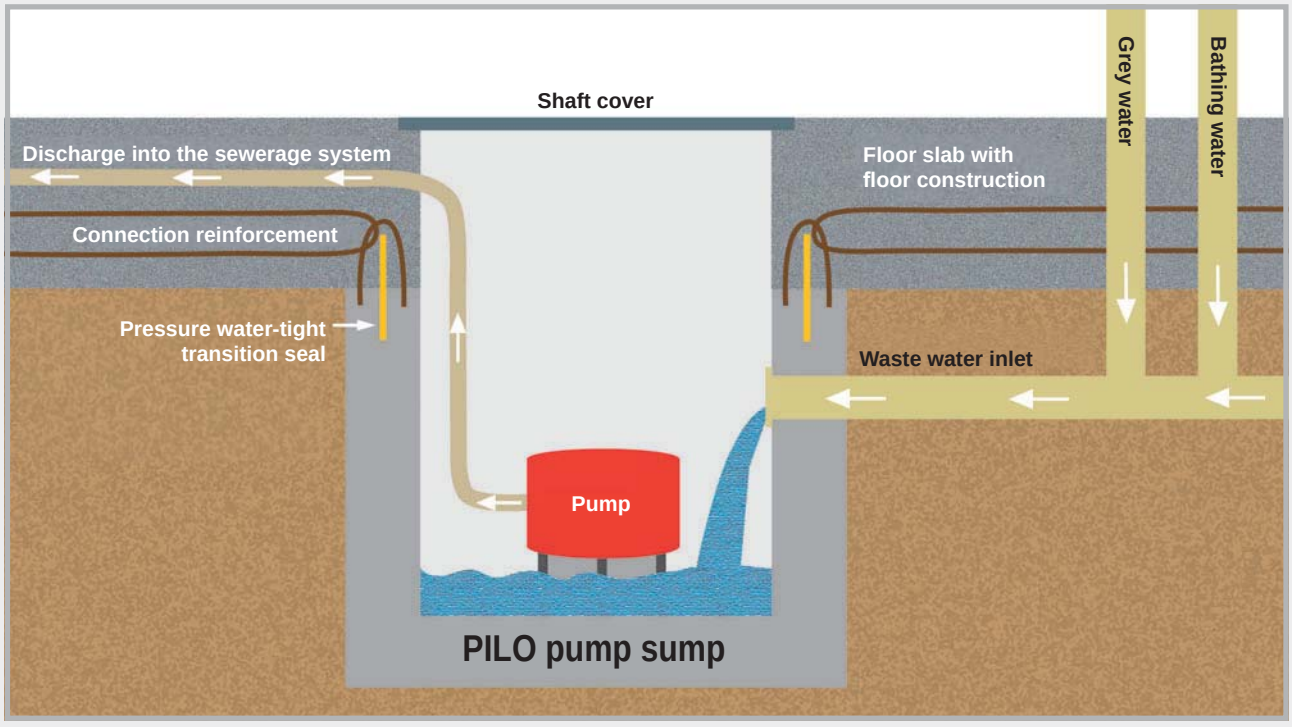
Walkable covers, galvanised

Pump sump L x W x H Dimensions in cm		60 x 60 x 60	80 x 80 x 80	100 x 100 x 80	120 x 120 x 80
clear dimension		65.5 x 65.5	85.5 x 85.5	105.5 x 105.5	122 x 122
cover size		70 x 70	90 x 90	110 x 110	126.5 x 126.5
frame outer dimension		71 x 71	91 x 91	111 x 111	131 x 131
can withstand load of up to 750 kg	Art. No. weight/pc. **€/pc.**	090532 15.0 kg **125.00**	090534 24.0 kg **190.00**	090536 44.0 kg **352.00**	090538 66.0 kg **605.00**
can be bolted down to exclude surface water and odours can withstand load of up to 750 kg	Art. No. Weight/pc. **€/pc.**	090542 26.0 kg **302.00**	090544 39.0 kg **426.00**	090546 55.0 kg **599.00**	090548 74.0 kg **955.00**

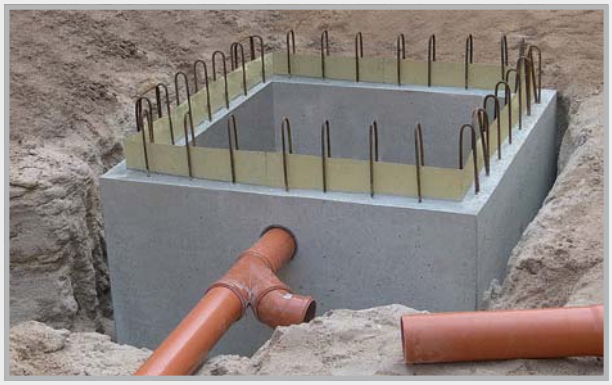
Traffic-bearing covers, galvanised

Pump sump L x W x H Dimensions in cm		60 x 60 x 60	80 x 80 x 80	100 x 100 x 80	120 x 120 x 80
clear dimension		63 x 63	83 x 83	103 x 103	120 x 120
cover size		70 x 70	90 x 90	110 x 110	126.5 x 126.5
frame outer dimension		74 x 74	94 x 94	114 x 114	131 x 131
Traffic bearing up to 5000 kg Wheel pressure up to 1250 kg	Art. No. Weight/pc. **€/pc.**	090552 32.0 kg **285.00**	090554 51.0 kg **458.00**	090556 70.0 kg **714.00**	090558 112.0 kg **1150.00**
Traffic bearing up to 15000 kg Wheel pressure up to 3750 kg	Art. No. Weight/pc. **€/pc.**	090562 43.0 kg **485.00**	090564 70.0 kg **728.00**	090566 97.0 kg **1135.00**	090568 137.0 kg **1860.00**

Principle of operation of the PILO pump sump

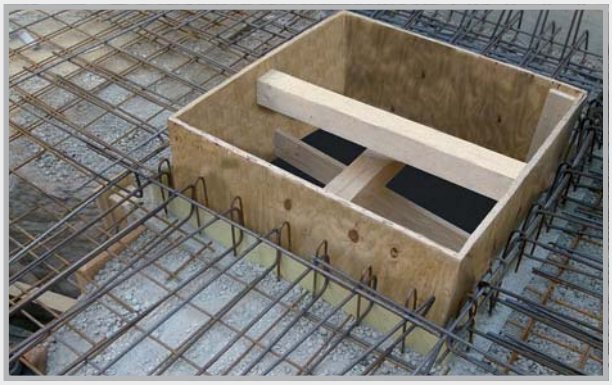


At the construction site



PILO pump sump with connected inlet.

Following concreting: illustration shows the pump sump (light grey) and concreted foundation (dark grey).



PILO pump sump prior to concreting of foundation. The illustration shows the joint sheet metal which forms a pressure water-tight seal at the transition to the foundation. The connection reinforcement of the pump sump is connected to the foundation reinforcement.

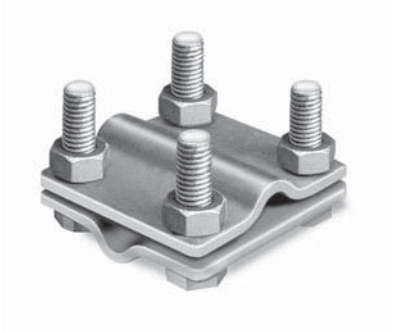
Compared to in-situ concrete construction you can save between 200 and 500 euro, depending on the size of the pump sump.

LIGHTNING PROTECTION

Earthing straps
page 96

Lightning protection wire
pages 96 – 97

Multi-purpose connecting clamps
page 98



Connectors
pages 99 – 103

Connecting clamps for reinforcements
pages 103 – 104

Fixed earthing terminals with accessories
pages 105 –107

Wall bushings
pages 108 – 109

Lightning protection accessories
pages 110 – 114

Lightning protection conductors
Dimensions and materials according to DIN EN 62561-2

Earthing straps

Earthing straps, galvanised

Art. No.	Size	Material	Presentation	Rolls per pallet	Price €
100014	30 x 3.5 mm	Galvanised steel Z 500	25 kg = approx. 30 m	40	Current price available on request
100016	30 x 3.5 mm	Galvanised steel Z 500	50 kg = approx. 60 m	20	
100022	40 x 4.0 mm	Galvanised steel Z 500	50 kg = approx. 39 m	20	
100024	40 x 5.0 mm	Galvanised steel Z 500	50 kg = approx. 32 m	20	

Earthing straps, stainless steel

Art. No.	Size	Material	Presentation	Rolls per pallet	Price €
100028	30 x 3.5 mm	A2 stainless steel according to DIN EN 62561-2	25 kg = approx. 30 m	40	
100030	30 x 3.5 mm	A2 stainless steel according to DIN EN 62561-2	50 kg = approx. 60 m	20	Current price available on request
100031	30 x 3.5 mm	A4 stainless steel according to DIN EN 62561-2	25 kg = approx. 30 m	40	
100032	30 x 3.5 mm	A4 stainless steel according to DIN EN 62561-2	50 kg = approx. 60 m	20	
100035	40 x 4.0 mm	A4 stainless steel according to DIN EN 62561-2	50 kg = approx. 39 m	20	

Round wires

Lightning protection wires, galvanised

Art. No.	Size	Material	Presentation	Rolls per pallet	Price €
100041	Ø 10 mm	Galvanised steel Z 350	25 kg roll = approx. 40.5 m	20	**Current price**
100042	Ø 10 mm	Galvanised steel Z 350	50 kg roll = approx. 81 m	10	**available on request**

Lightning protection wires, stainless steel standard

Art. No.	Size	Material	Presentation	Rolls per pallet	Price €
100051	Ø 10 mm	A2 according to DIN EN 62561-2	25 kg = approx. 40.5 m	20	Current price available on request
100052	Ø 10 mm	A2 according to DIN EN 62561-2	50 kg = approx. 81 m	10	
100055	Ø 10 mm	A4 according to DIN EN 62561-2	25 kg = approx. 40.5 m	20	
100056	Ø 10 mm	A4 according to DIN EN 62561-2	50 kg = approx. 81 m	10	

Lightning protection wires, stainless steel SUPER-SOFT

MASTERTEC Innovation

A special manufacturing procedure ensures uniformly soft quality of the wire.
SUPER-SOFT can be unrolled very easily and lies flat without undulation.

Art. No.	Size	Material	Presentation	Rolls per pallet	Price €
100061	Ø 10 mm	SUPER-SOFT A4 to DIN EN 62561-2, ID 900 mm	25 kg = approx. 40.5 m	40	**Current price available on request**
100059	Ø 10 mm	SUPER-SOFT A4 to DIN EN 62561-2, ID 900 mm	50 kg = approx. 81 m	20	

Lightning protection wires, aluminium

100084	Ø 8 mm	ALU AlMgSi medium hard	20 kg = approx. 148 m	18	**Current price available on request**
100080	Ø 8 mm	ALU AlMgSi soft-twistable	20 kg = approx. 148 m	18	
100082	Ø 8/11 mm	ALU AlMgSi soft-twistable with halogen-free plastic sheathing	20 kg = approx. 100 m	18	
100088	Ø 10 mm	ALU AlMgSi soft	20 kg = approx. 95 m	18	

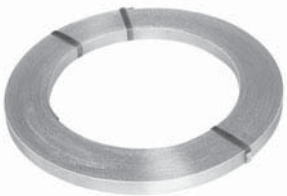
Lightning protection wires, copper

100090	Ø 8 mm	F 22 soft	50 kg = approx. 111 m	10	**Current price**
100092	Ø 8 mm	F 25 medium hard	50 kg = approx. 111 m	10	**available on request**

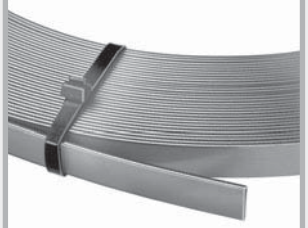
Lightning protection wires, steel with plastic coating

100060	Ø 10/13 mm	Galvanised steel Z 350 with plastic coating	50 kg = approx. 75 m	10	**Current price available on request**
100065	Ø 10/13 mm	Galvanised steel Z 350 with plastic coating	35 kg = approx. 52 m	15	

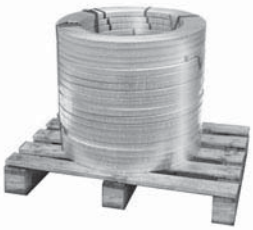
Packaging of earthing straps



Single coil



Rounded edges



Pack – 50 kg coils

Pack – 25 kg coils

Packaging of lightning protection wires

Galvanised

Inner diameter 600 mm
Outer diameter 800 mm

Stainless steel

STANDARD SUPER-SOFT

Inner dia. 600 / 900 mm
Outer dia. 800 / 1100 mm

Aluminium

Inner diameter 500 mm
Outer diameter 650 mm

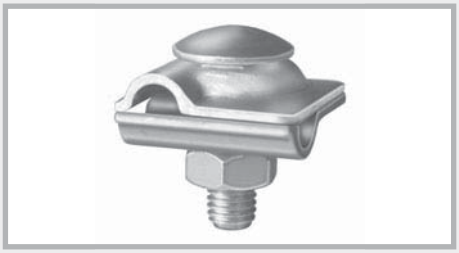
plastic sheathing

Inner diameter 500 mm
Outer diameter 700 mm

Connectors

Multi-purpose connecting clamps

with mushroom head bolt and protection against twisting

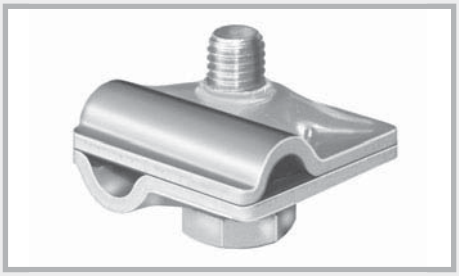


with mushroom head bolt and protection against twisting

Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100147	**Galvanised steel,** 2-part, round/round clamping range: Ø 8 - 10 mm, M10 with mushroom head bolt and protection against twisting	50 pcs.	5.00 kg per carton	**0.84**
100149	**V2A,** 2-part, round/round clamping range: Ø 8 - 10 mm, M10 with mushroom head bolt and protection against twisting	50 pcs.	4.60 kg per carton	**2.40**
100150	**V4A,** 2-part, round/round, clamping range: Ø 8 - 10 mm, M10 with mushroom head bolt and protection against twisting	50 pcs.	4.60 kg per carton	**3.60**

Multi-purpose connecting clamps

with thread in lower part



Thread in lower part

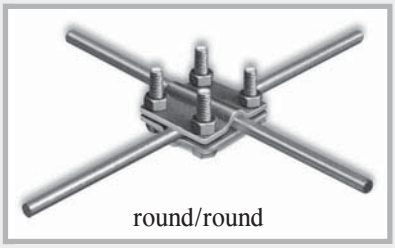
Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100157	**Galvanised steel,** 2-part, round/round clamping range: Ø 8 - 10 mm, M10 Thread in lower part	50 pcs.	4.50 kg per carton	**1.09**
100158	**V2A,** 2-part, round/round clamping range: Ø 8 - 10 mm, M10 Thread in lower part	50 pcs.	3.90 kg per carton	**2.50**
100159	**V4A,** 2-part, round/round clamping range: Ø 8 - 10 mm, M10 Thread in lower part	50 pcs.	3.80 kg per carton	**3.70**
100153	**Aluminium,** 2-part, round/round clamping range: 8 – 10 mm NIRO M10 screw Thread in lower part	50 pcs.	3.00 kg per carton	**1.25**
100154	**Aluminium with spring washer** 2-part, round/round, clamping range: 8 – 10 mm NIRO M10 screw Thread in lower part	50 pcs.	3.00 kg per carton	**1.40**
100155	**Copper,** 2-part, round/round clamping range: 8 mm NIRO M10 screw Thread in lower part	50 pcs.	6.00 kg per carton	**3.25**

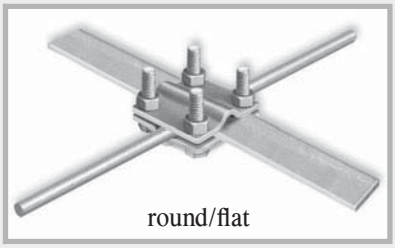
Connectors

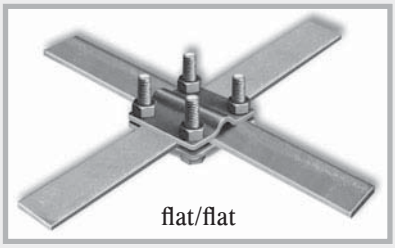
Stainless steel cross connectors, round/round

Clamping range: round cond. Ø 8 + 10 mm, flat cond. up to 30 mm
Universal for flat/flat, flat/round and round/round

Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100140	**V2A,** 2-part, round/round universal heavy duty version, M8 screws	50 pcs.	9.50 kg per carton	**4.75**
100144	**V2A,** 2-part, round/round universal light version, M6 screws	50 pcs.	6.90 kg per carton	**3.00**
100143	**V4A,** 2-part, round/round universal heavy duty version, M8 screws	50 pcs.	9.60 kg per carton	**5.95**
100145	**V4A,** 2-part, round/round universal light version, M6 screws	50 pcs.	6.90 kg per carton	**4.30**
Clamping range: round cond. Ø 8 + 10 mm, flat cond. 30 + 40 mm				
100141	**V4A,** 2-part, round/round universal heavy duty version, M8 screws	50 pcs.	14.20 kg per carton	**8.75**


round/round

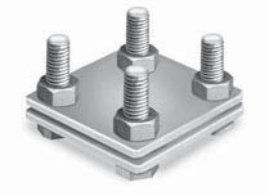

round/flat

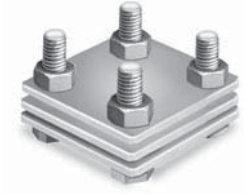

flat/flat

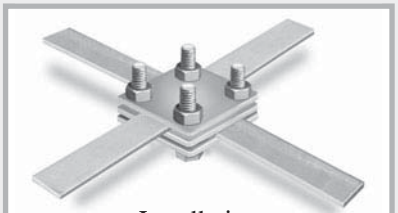
Galvanised cross connectors, flat/flat

for earthing strap up to 30 mm wide

Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100100	**Galvanised steel,** 2-part, flat/flat heavy duty version, M8 screws	50 pcs.	10.50 kg per carton	**1.60**
100103	**Galvanised steel,** 3-part, flat/flat heavy duty version, M8 screws with intermediate plate	50 pcs.	14.00 kg per carton	**2.25**
100106	**Galvanised steel,** 2-part, flat/flat light version, M6 screws	50 pcs.	7.50 kg per carton	**1.35**
100109	**Galvanised steel,** 3-part, flat/flat light version, M6 screws with intermediate plate	50 pcs.	10.30 kg per carton	**1.70**


Without intermediate plate


With intermediate plate

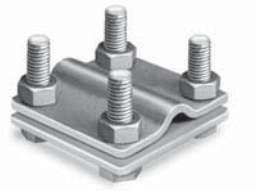

Installation

Connectors

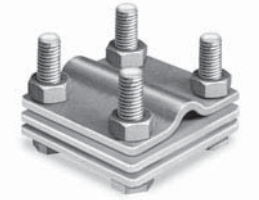
Galvanised cross connectors, flat/round

for round conductors Ø 8 + 10 mm and earthing strap up to 30 mm width

Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100115	**Galvanised steel,** 2-part, flat/round heavy duty version, M8 screws	50 pcs.	10.70 kg per carton	**1.65**
100118	**Galvanised steel,** 3-part, flat/round heavy duty version, M8 screws with intermediate plate	50 pcs.	14.20 kg per carton	**2.30**
100121	**Galvanised steel,** 2-part, flat/round light version, M6 screws	50 pcs.	7.60 kg per carton	**1.40**
100124	**Galvanised steel,** 3-part, flat/round light version, M6 screws with intermediate plate	50 pcs.	10.50 kg per carton	**1.85**



Without intermediate plate



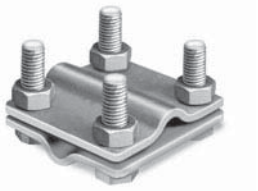
With intermediate plate

Installation

Galvanised cross connectors, round/round

for round conductors Ø 8 + 10 mm

Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100127	**Galvanised steel,** 2-part, round/round heavy duty version, M8 screws	50 pcs.	10.90 kg per carton	**1.75**
100130	**Galvanised steel,** 3-part, round/round heavy duty version, M8 screws with intermediate plate	50 pcs.	14.50 kg per carton	**2.30**
100133	**Galvanised steel,** 2-part, round/round light version, M6 screws	50 pcs.	7.70 kg per carton	**1.50**
100136	**Galvanised steel,** 3-part, round/round light version, M6 screws with intermediate plate	50 pcs.	11.00 kg per carton	**1.95**



Without intermediate plate

With intermediate plate

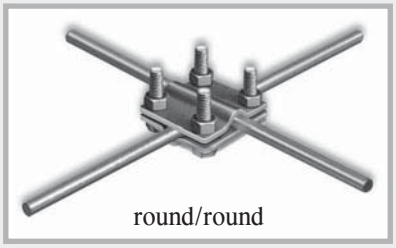
Installation

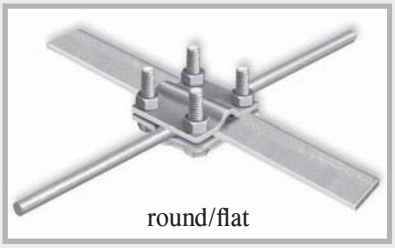
Connectors

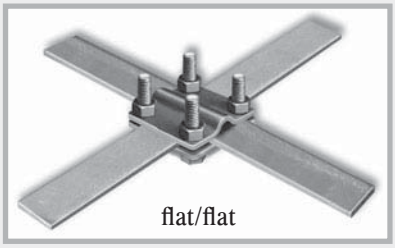
Galvanised cross connectors, round/round

Clamping range: round cond. Ø 8 + 10 mm, flat cond. 30 + 40 mm
Universal for flat/flat, flat/round and round/round

Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100129	**Galvanised steel,** 2-part Round/round heavy duty version, M8 screws	50 pcs.	17.80 kg per carton	**3.30**


round/round


round/flat


flat/flat

Stainless steel double clamps

for earthing strap up to 40 mm width and round conductors 8 + 10 mm

Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100270	**V2A,** 2-part, flat/flat heavy duty version, M10 screws	50 pcs.	10.00 kg per carton	**4.50**
100273	**V4A,** 2-part, flat/flat heavy duty version, M10 screws	50 pcs.	10.00 kg per carton	**6.05**
100276	**V2A,** 2-part, flat/round heavy duty version, M10 screws	50 pcs.	9.50 kg per carton	**4.50**
100279	**V4A,** 2-part, flat/round heavy duty version, M10 screws	50 pcs.	9.50 kg per carton	**6.05**
100282	**V2A,** 2-part, round/round heavy duty version, M10 screws	50 pcs.	9.50 kg per carton	**4.50**
100285	**V4A,** 2-part, round/round heavy duty version, M10 screws	50 pcs.	9.50 kg per carton	**6.05**

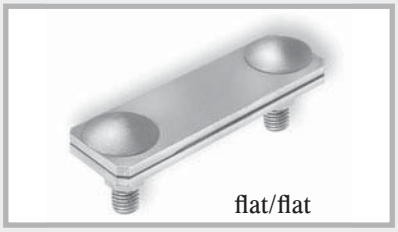
Galvanised double clamps

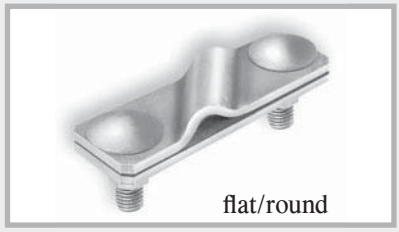
for earthing strap up to 40 mm width and round conductors 8 + 10 mm

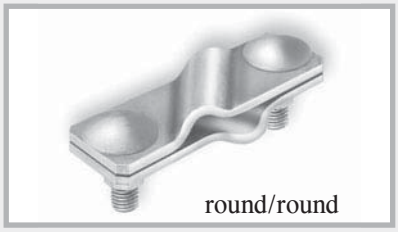
Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100220	**Galvanised steel,** 2-part, flat/flat heavy duty version, M10 screws	50 pcs.	12.20 kg per carton	**1.75**
100225	**Galvanised steel,** 2-part, flat/round heavy duty version, M10 screws	50 pcs.	11.60 kg per carton	**1.75**
100230	**Galvanised steel,** 2-part, round/round heavy duty version, M10 screws	50 pcs.	11.60 kg per carton	**1.75**

Connectors

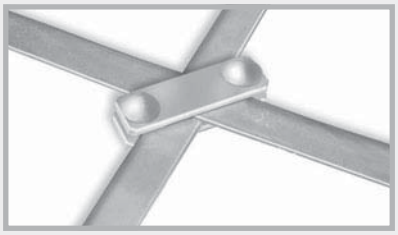
Double clamps

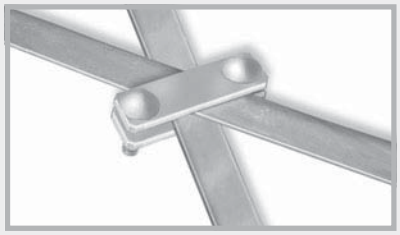

flat/flat

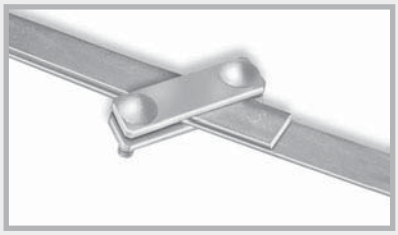

flat/round

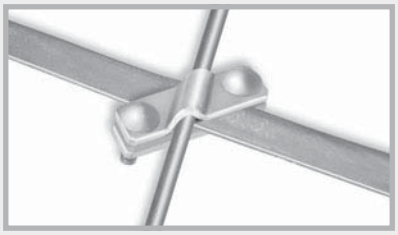

round/round

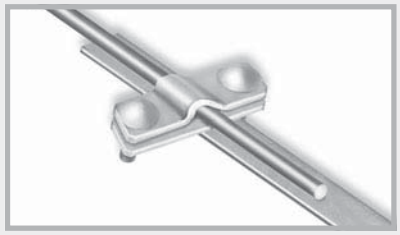
Possible clamping connections

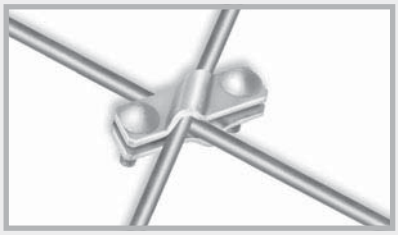

flat/flat
cross connection


flat/flat
45°


flat/flat
parallel


flat/round
cross connection


flat/round
parallel

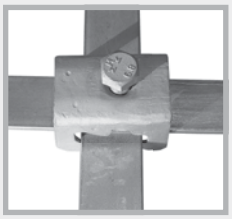

round/round
cross connection

Single clamps

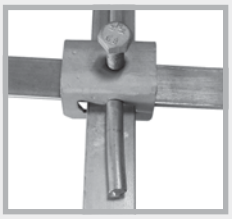
Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100163	**Galvanised steel,** 1 M10 screw flat conductor up to 30 mm round conductor 8 + 10 mm for T, cross and parallel connections	50 pcs.	6.20 kg per carton	**1.40**
100162	**V4A stainless steel,** 1 M10 screw flat conductor up to 30 mm round conductor 8 + 10 mm for T, cross and parallel connections	50 pcs.	5.30 kg per carton	**4.70**

Single clamp

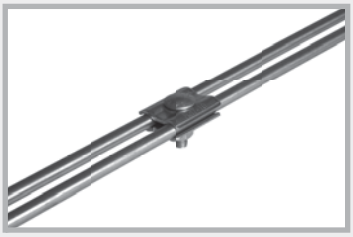
flat/flat
parallel connection


flat/flat
cross connection

flat/round
parallel connection


flat/flat/round
connection

Connectors



Parallel connectors

Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**
100240	**Galvanised steel,** 1 M10 screw 2-part, Ø 8 – 10 mm	50 pcs.	7.20 kg per carton	**1.50**
100243	**V4A,** 1 screw M10 2-part, Ø 8 – 10 mm	50 pcs.	6.20 kg per carton	**4.50**

Wedge connector

Art. No.	Design	Pcs. / carton	Weight	**Price € / pc.**	
100160	**Galvanised** round conductor Ø 10 mm flat conductor up to 40 mm with lock-in position in the wedge	50 pcs.	11.0 kg per carton	**1.65**	 Wedge connector

Connecting clamps for reinforcements

Connecting clamps for connection of flat conductor to reinforcement

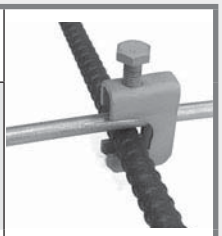
Art. No.	Design	Packaging Carton	Weight	**Price € per pack**	
100250	**Galvanised steel,** M10 screw flat conductor up to 30 mm constructional steel 6 – 22 mm	50 pcs.	6.60 kg per carton	**1.60**	 Art. 100250 Art. 100251
100251	**Bright steel,** M10 screw flat conductor up to 30 mm constructional steel 6 – 22 mm	50 pcs.	6.60 kg per carton	**1.45**	
100253	**Galvanised steel,** M10 screw flat conductor up to 40 mm constructional steel 6 – 22 mm	50 pcs.	6.60 kg per carton	**1.75**	 Art. 100252 Art. 100253
100252	**V4A stainless steel,** M10 screw flat conductor up to 40 mm constructional steel 6 – 22 mm	50 pcs.	5.40 kg per carton	**5.00**	

Connecting clamps for connection of flat and round conductors to reinforcement

Art. No.	Design	Packaging Carton	Weight	**Price € per pack**	
100255	**Galvanised steel,** M10 screw flat conductor up to 30 mm round conductor 8 + 10 mm constructional steel 6 – 22 mm	50 pcs.	9.40 kg per carton	**2.25**	 Art. 100255 Art. 100257
100257	**V4A stainless steel,** M10 screw flat conductor up to 30 mm round conductor 8 + 10 mm constructional steel 6 – 22 mm	50 pcs.	8.20 kg per carton	**6.40**	

Connectors

Connecting clamps for connection of round conductor to reinforcement

Art. No.	Design	Packaging Carton	Weight	**Price € per pc.**	
100259	**Galvanised steel** M10 screw round conductor 8 + 10 mm constructional steel 6 – 22 mm	50 pcs.	5.80 kg per carton	**1.65**	
100260	**V4A stainless steel** M10 screw round conductor 8 + 10 mm constructional steel 6 – 22 mm	50 pcs.	5.10 kg per carton	**4.60**	Art. 100259 Art. 100260

Installation options

Connecting clamp for connection of flat conductor to reinforcement
Art. no. 100250
100251
100252
100253

Connecting clamp for connection of flat and round conductors to reinforcement
Art. no. 100255
100257

Connecting clamp for connection of round conductor to reinforcement

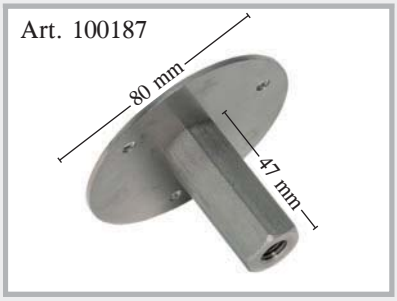
Art. no. 100259
100260

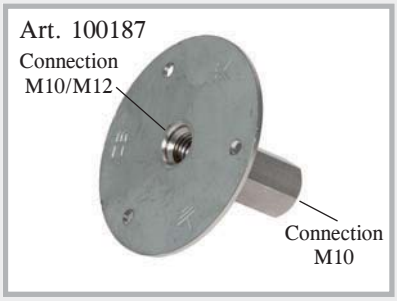
DIN 18014: The foundation earth electrode must be permanently connected to the reinforcement every 2 metres.

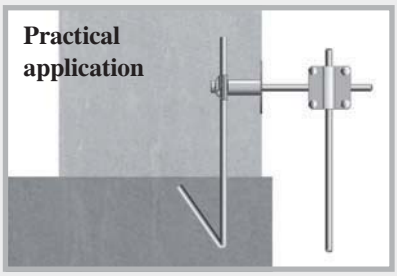
Fixed earthing terminals with accessories

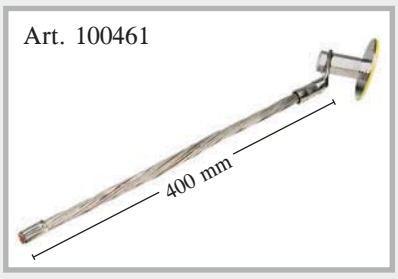
to connect the equipotential bonding conductors to the foundation earth electrode, reinforcement and lightning protection system

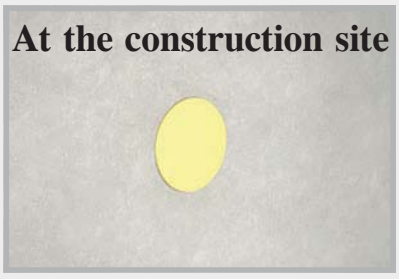
Art. No.	Design	Pcs. per pack	Weight	**Price € / pc.**
100187	**Fixed earthing terminal M10/M12 V4A without axis with yellow protective cap** connection M10 + M12	10 pcs.	1.90 kg per carton	**10.35**
100202	**Fixed earthing terminal M10/M12 V4A with mounted, galvanised axis, L 200 mm with yellow protective cap**	10 pcs.	3.10 kg per carton	**14.00**
100200	**Fixed earthing terminal M10/M12 V4A with mounted A2 multi-purpose connecting clamp with yellow protective cap**	10 pcs.	2.50 kg per carton	**12.75**
100455	**Fixed earthing terminal M16 V4A without axis with yellow protective cap** Connection M16	10 pcs.	2.00 kg per carton	**17.00**
100461	**Fixed earthing terminal M16 V4A with flexible connection conductor** Connection conductor CU/SN 95 mm² Conductor length 400 mm	1 pc.	0.75 kg per pack	**56.00**



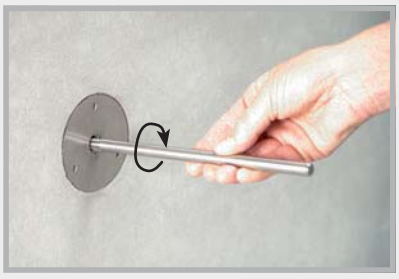








Fixed earthing terminal after stripping of formwork



Pull off protective cap and (for example) screw in an axis

Cross clamps for fixed earthing terminals

Art. No.	Design	Pcs. per pack	Weight	**Price € / pc.**
100188	**Cross clamp for fixed earthing terminal M10/12, galvanised** Thread M10, round 8 + 10 mm flat up to 40 mm, thread length 70 mm	10 pcs.	3.90 kg per carton	**9.95**
100189	**Cross clamp for fixed earthing terminal M10/12, A4 stainless steel** Thread M10, round 8 + 10 mm flat up to 40 mm, thread length 70 mm	10 pcs.	3.20 kg per carton	**15.90**
100458	**Cross clamp for fixed earthing terminal M16, A4 stainless steel** Thread M16, round 8 + 10 mm flat up to 40 mm, thread length 30 mm	10 pcs.	3.20 kg per carton	**17.90**

Art. 100188 + 100189

100458

Fixed earthing terminal M10/12 with cross clamp

Fixed earthing terminal M16 with cross clamp

At the construction site

Fixed earthing terminal with screwed in cross clamp.
Round and flat conductors can be connected

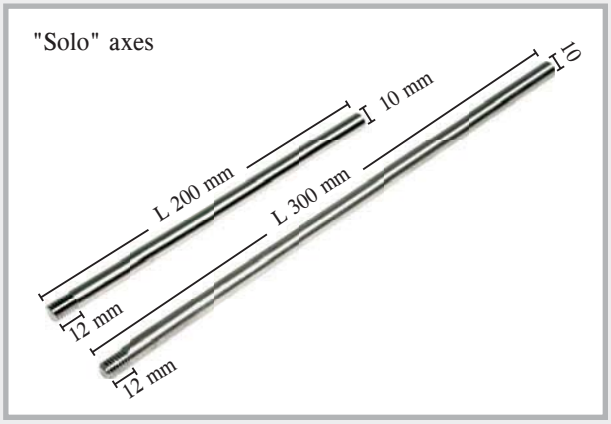
Axes for fixed earthing terminal
"Solo" axes

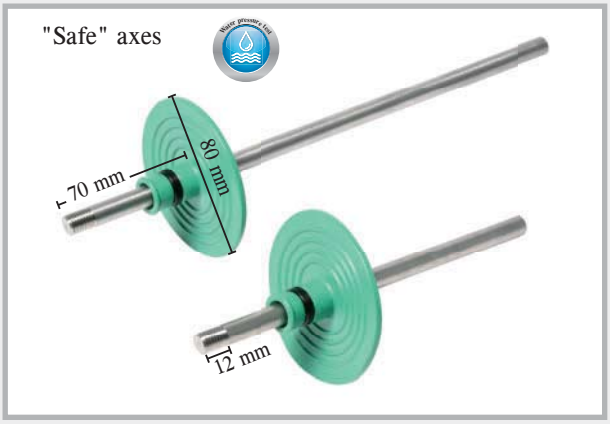
Art. No.	Design	Pcs. per pack	Weight	**Price € / pc.**
100183	**Galvanised,** length 200 mm	50 pcs.	6.50 kg per carton	**3.65**
100185	**Galvanised,** length 300 mm	50 pcs.	9.80 kg per carton	**5.35**
100184	**V4A,** length 200 mm	50 pcs.	6.50 kg per carton	**5.25**
100186	**V4A,** length 300 mm	50 pcs.	9.80 kg per carton	**7.80**

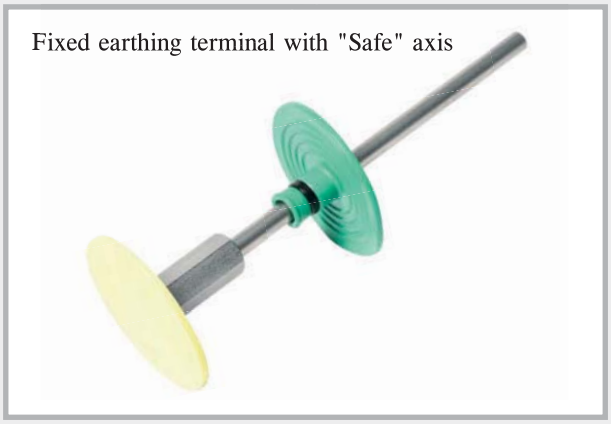
"Safe" axes for pressure water-tight fixed earthing terminal

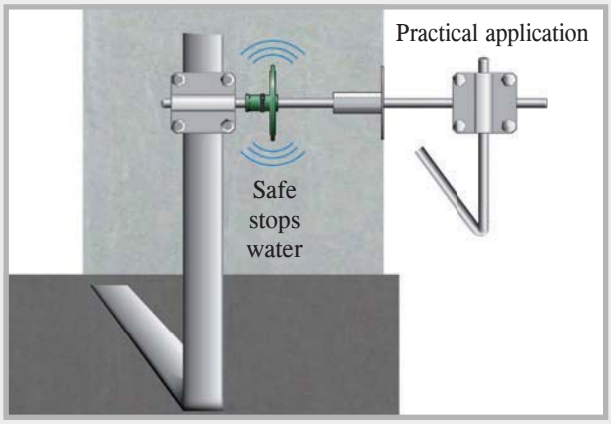
Art. No.	Design	Pcs. per pack	Weight	**Price € / pc.**
100177	**Galvanised,** length 200 mm	1 pc.	0.15 kg / pc.	**12.40**
100178	**Galvanised,** length 300 mm	1 pc.	0.21 kg / pc.	**14.25**
100179	**V4A,** length 200 mm	1 pc.	0.15 kg / pc.	**14.00**
100180	**V4A,** length 300 mm	1 pc.	0.21 kg / pc.	**16.75**

Axes for fixed earthing terminal



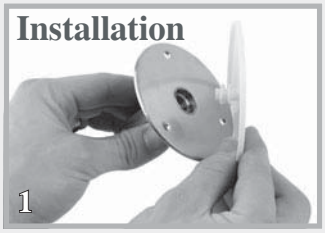






Accessories for fixed earthing terminal

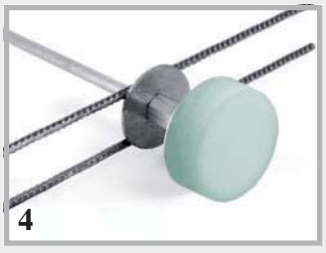
Art. No.	Design	Pcs. per pack	Weight	**Price € / pc.**
100198	**Plastic foam for fixed earthing terminal** self-adhesive on one side Ø 76 mm, thickness 20 mm	10 pcs. per bag	0.10 kg	**1.45**
100196	**Fixing spider for fixed earthing terminal** steel/bright	1 pc.	0.13 kg	**7.90**



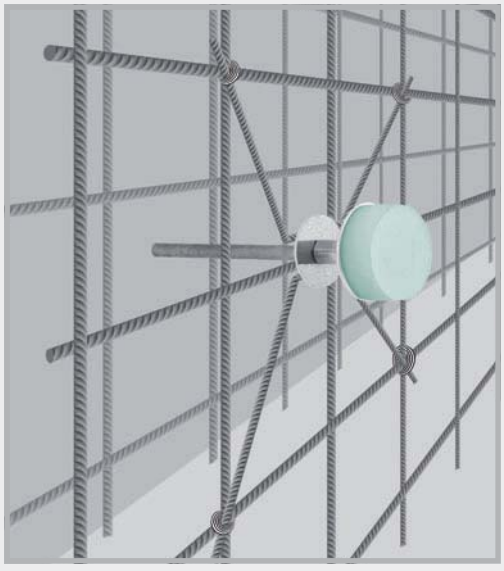
Remove protective cap of fixed earthing terminal

Glue on plastic foam

Screw axis through the fixing spider and fasten fixed earthing terminal



Installation complete



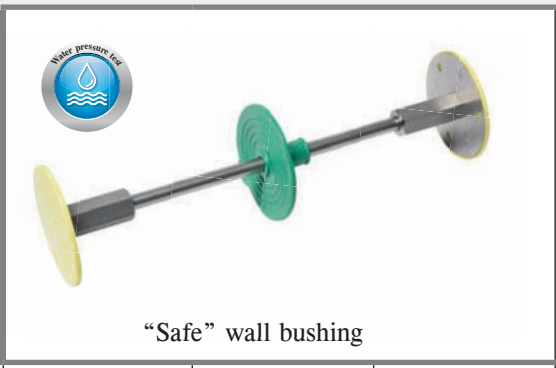
Fixed earthing terminal with fixing spider on the reinforcement

Wall bushings

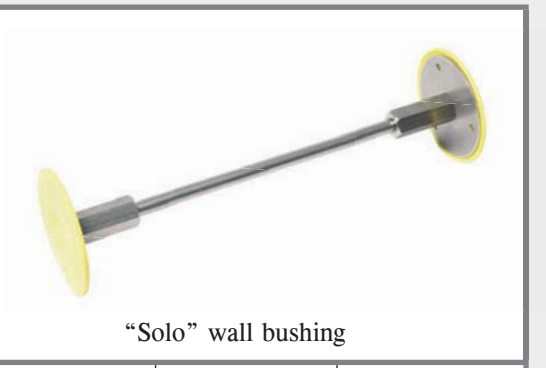
Wall bushings with fixed earthing points pre-assembled

The wall bushings are pre-assembled and supplied in the exact wall thickness. Time-consuming adjustments are not required.

Fixed earthing terminal in stainless steel V4A, connection axes 10 mm V4A



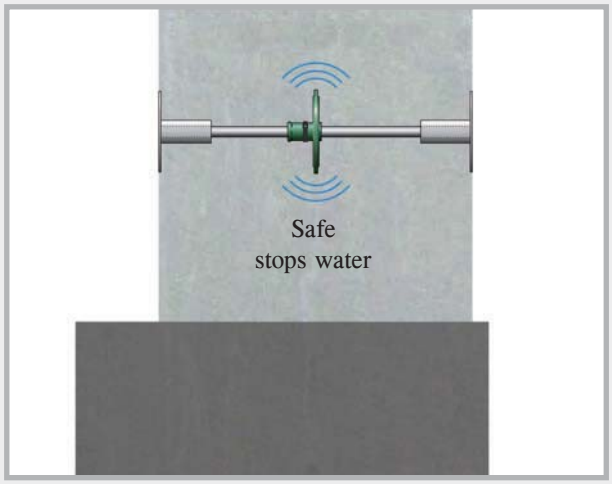
"Safe" wall bushing



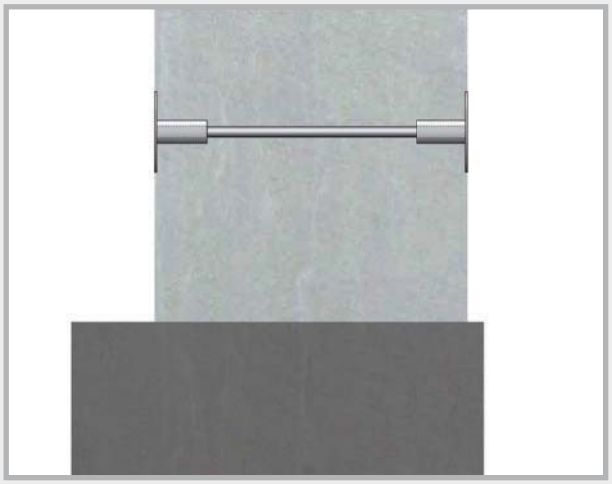
"Solo" wall bushing

Wall thickness	Art. No.	Weight	€/pc.	Art. No.	Weight	€/pc.
200 mm	**100394**	0.45	**38.00**	**100444**	0.43	**29.10**
240 mm	**100396**	0.46	**39.20**	**100446**	0.44	**30.30**
250 mm	**100398**	0.47	**39.60**	**100448**	0.45	**30.60**
300 mm	**100400**	0.50	**41.00**	**100450**	0.48	**32.10**
350 mm	**100402**	0.53	**42.50**	**100452**	0.51	**33.60**
365 mm	**100404**	0.54	**43.00**	**100454**	0.52	**34.10**
400 mm	**100406**	0.57	**44.00**	**100456**	0.55	**35.20**

Practical application

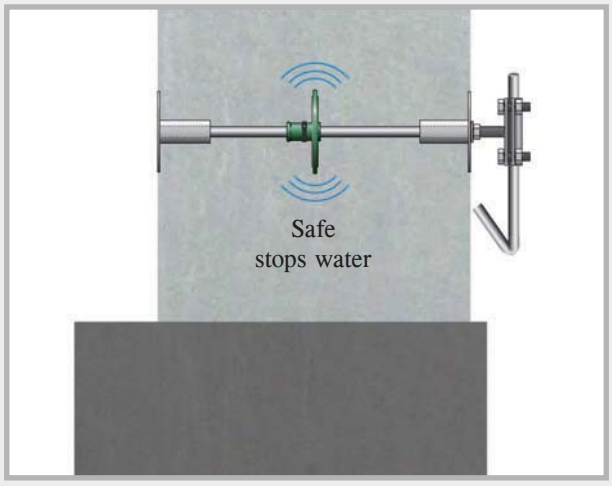


Pre-assembled "Safe" wall bushing installed

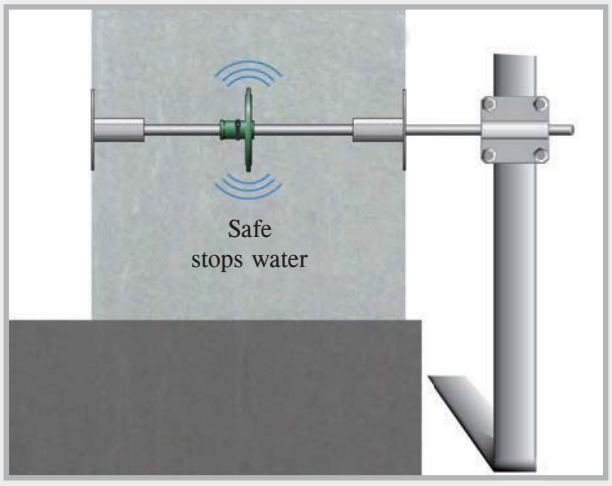


Pre-assembled "Solo" wall bushing installed

Practical application



"Safe" wall bushing with cross clamp connection



"Safe" wall bushing with earthing strap connection

Connection axis for wall bushings

Steel V4A, diameter 10 mm, M10 thread at both ends, length of thread 12 mm

"Safe" connection axis

"Solo" connection axis

Wall thickness	Art. No.	Weight	€/pc.	Art. No.	Weight	€/pc.
200 mm	**100360**	0.12 kg	**15.30**	**100410**	0.10 kg	**6.40**
240 mm	**100365**	0.13 kg	**16.50**	**100415**	0.11 kg	**7.60**
250 mm	**100370**	0.14 kg	**16.90**	**100420**	0.11 kg	**7.90**
300 mm	**100375**	0.17 kg	**18.30**	**100425**	0.14 kg	**9.40**
350 mm	**100380**	0.20 kg	**19.80**	**100430**	0.17 kg	**10.90**
365 mm	**100385**	0.21 kg	**20.30**	**100435**	0.18 kg	**11.40**
400 mm	**100390**	0.23 kg	**21.30**	**100440**	0.20 kg	**12.50**

Lightning protection accessories MultiCap

Protective cap to DIN 18014

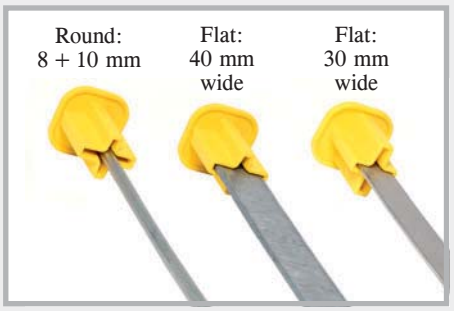
YouTube INSTALLATION FILM

PVC protective cap for round and flat conductors

Art. No.	Design	Packaging	Weight	Price € / pc.
100500	**MultiCap,** colour: yellow area of application: round conductor: 8 + 10 mm flat conductor: 30 x 3.5 mm 40 x 4.0 mm 30 x 3.0 mm 40 x 5.0 mm	100 pcs. per bag	5.10 kg per bag	**0.97**

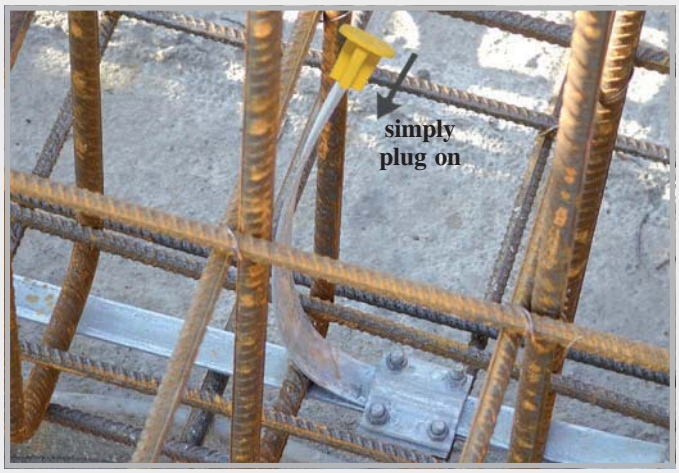
Technical data

Material: PVC
Large labelled safety cap
60 x 60 mm
Long mounting slot 50 mm



Round: 8 + 10 mm
Flat: 40 mm wide
Flat: 30 mm wide

MultiCap can be used universally



Description

- No risk of injury
- Simply plug on
- Yellow signal colour
- One protection cap for 6 sizes

Excerpt from DIN 18014
Foundation earth electrode:
For safety reasons, the terminal lugs must be prominently marked during the construction phase.

Terminal lugs

Round conductor rods, bevelled

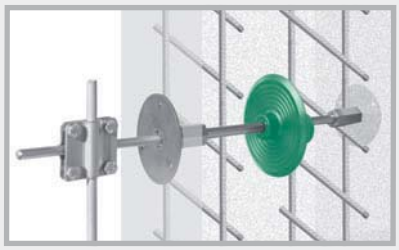
Round conductor rods, bevelled

Art. No.	Design	Length	Packaging	Weight / bundle	Price € / pc.
100555	**A4 round conductor Ø 10 mm**	1.50 m	10 pcs./ bundle	9.40 kg	**16.40**
100560	**A4 round conductor Ø 10 mm**	2.00 m	10 pcs./ bundle	12.40 kg	**20.60**
100565	**A4 round conductor Ø 10 mm**	2.50 m	10 pcs./ bundle	15.60 kg	**24.90**
100570	**A4 round conductor Ø 10 mm**	3.00 m	10 pcs./ bundle	18.80 kg	**29.30**

Lightning protection accessories

RONDO

Sealing collars for lightning protection wire and earthing strap



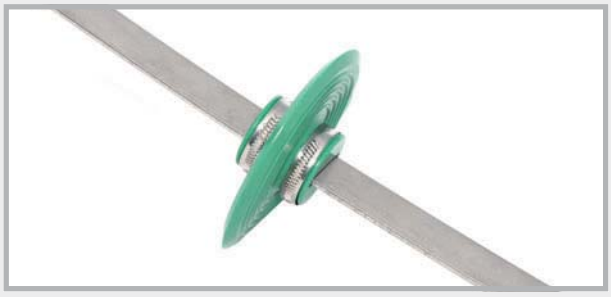
RONDO sealing collars form pressure water-tight seals for lightning protection wires and earthing straps passing through concrete walls, floor slabs and shafts.

Art. No.	Design	Pcs. per pack	Weight	**Price € / pc.**
090890	RONDO RO 10 for lightning conductor 8 + 10 mm	1	0.13 kg	**17.90**
090892	RONDO RO flat for earthing strap 30 x 3.5 + 30 x 3.0 mm	1	0.17 kg	**18.80**

RONDO RO 10

RONDO RO flat

RONDO RO 10, mounted



RONDO RO flat, mounted

The sealing collars are supplied with clips, ready for installation

Lightning protection accessories

Art. No.	Design	Pcs. per pack	Weight	**Price € / pc.**
100165	**Profiled earth rod, 1.5 m long, galvanised** cross profile 50 x 50 mm with cross clamp welded on	1 pc.	4.30 kg per pack	**23.20**
100170	**Spacer for foundation earth electrode, galvanised** for round conductors Ø 8 – 10 mm earthing strap 30 x 3.5 mm length 280 mm, installation spacing 1 – 1.5 m	100 pcs.	10.30 kg per carton	**2.35**
100175	**Expansion strip, aluminium** **size: 320 x 40 x 5 mm** with shim and spring washer	25 pcs.	6.90 kg per carton	**10.80**

100165 Profiled earth rod

100170 Spacer with attached flat conductor
(flat conductor not included in scope of supply)

100175 Expansion strip

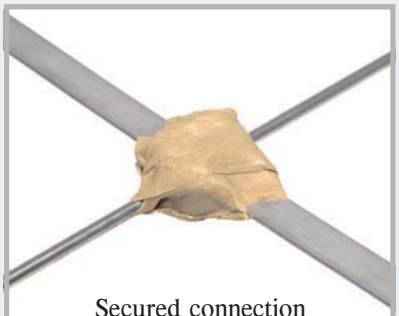
Anti-corrosive tapes

For wrapping of overground and underground connections.

Art. No.	Design	Pcs. per pack	Weight / roll	**Price € / roll**
	Anti-corrosive tapes roll length 10 m, certified by DVGW			
100190	size: 1.5 x 50 mm	24 rolls/carton	1.00 kg	**6.90**
100193	size: 1.5 x 100 mm	12 rolls/carton	2.10 kg	**13.70**

100190

100193



Secured connection

Earth rod for use in earthing systems

Art. No.	Design	Pcs. per pack	Weight	Price € / pc.
100205	**Earth rod for the installation of earthing systems** galvanised steel Length: 1500 mm Ø 20 mm	1	3.60 kg per pc.	**12.20**
100210	**Earth rod for the installation of earthing systems** A4 stainless steel Length: 1500 mm Ø 20 mm	1	3.60 kg per pc.	**63.20**
100215	**Impact tip to drive in the first earth rod** bright steel	1	0.04 kg per pc.	**6.90**
100216	**Drive-in aid for earth rod** bright steel	1	0.55 kg per pc.	**7.90**
100218	**Connecting clamp for earth rod** galvanised material round 8 + 10 mm flat up to 40 mm	1	0.38 kg per pc.	**4.80**
100217	**Connecting clamp for earth rod** A4 stainless steel round 8 + 10 mm flat up to 40 mm	1	0.30 kg per pc.	**12.20**

100205 + 100210

The earth rods have a drilled hole on one side and a pin on the other. This produces a self-closing coupling.

100205 + 100210

100215

100216

100217 + 100218

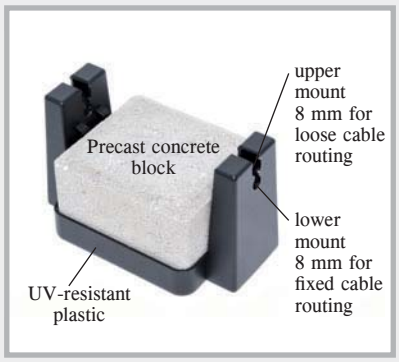
Connecting clamp installed

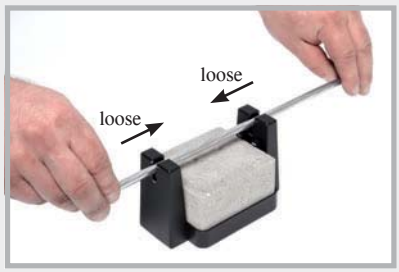
MultiClip roof conductor holder

For loose and fixed wire routing

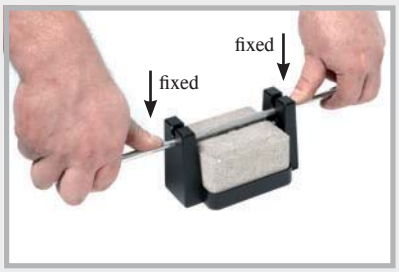
Art. No.	Design	Pcs. per pack	Weight	**Price € / pc.**	
100470	**MultiClip roof conductor holder for flat roofs** mount 8 mm holder made of UV-resistant plastic stone made of concrete	1000 pcs. Pallet 10 pcs. secondary packaging	1.00 kg per pc.	**0.89**	 Roof conductor holder

Product description



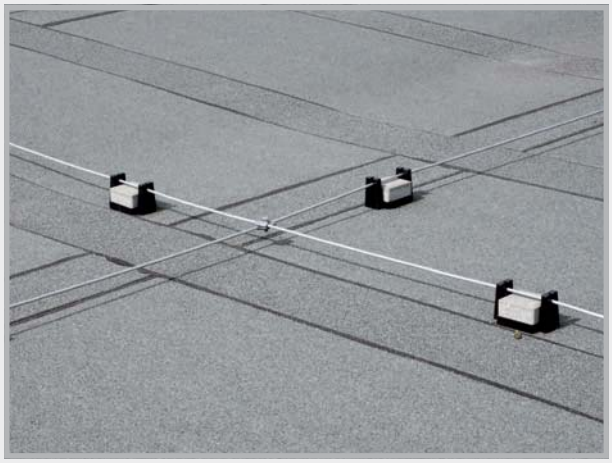


Pushing the round conductor into the upper mount. The wire is locked in place but can be moved.



Pushing the wire through into the lower mount. The wire is permanently locked in place.

At the construction site



Basic principles of the installation of lightning protection conductors and connectors

FOUNDATION EARTH ELECTRODE

Installation location:	In the concrete of the foundation and floor slab with minimum of 5 cm concrete cover on all sides
Material:	Galvanised or non-galvanised steel as flat conductor 30 x 3.5 mm or round conductor DN 10 mm

CONNECTION PARTS ON FOUNDATION EARTH ELECTRODE

Installation location:	In subsoil
Material:	Galvanised steel with plastic sheathing or A4 stainless steel material grades 1.4401, 1.4404, 1.4571 Flat conductor 30 x 3.5 mm or round conductor DN 10 mm

RING EARTH ELECTRODE AND CONNECTION PARTS ON RING EARTH ELECTRODE

Installation location:	Outside the foundation in the subsoil
Material:	A4 stainless steel material grades 1.4401, 1.4404, 1.4571 as 30 x 3.5 mm flat conductor or round conductor DN 10 mm **Galvanised material is not permitted in this area**

CONNECTOR

Installation location:	In subsoil, connector made of A4 stainless steel, galvanised in foundation
Presentation:	Wedge connectors are not permitted: unless installed in non-vibrated concrete 4 x M6 screws above ground only and for arrester lines and down conductors 4 x M 8 or 2 x M 10 screws and M 10 multi-purpose connecting clamp for use in the following areas: subsoil, concrete, above ground, down conductors and arrester lines.

DIN STANDARDS DIN EN 62561-1 and 62561-2

COSTS The cost of stainless steel round conductors is up to 33% less than stainless steel flat conductors. The round conductor, which can be installed as an alternative to the flat conductor, is easier to handle and therefore has a significantly higher workability.

FORMWORK ACCESSORIES

Damp proof courses

pages 118 – 120

STOPPER

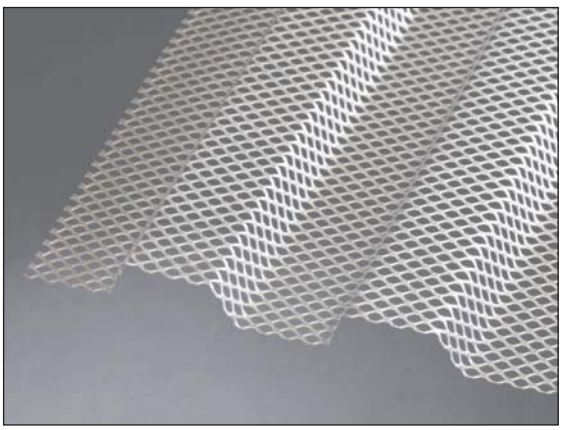
pages 121 – 124

ActiveRings + RONDO MINI

pages 125 – 128

Impact sound insulation + corrugated bearings

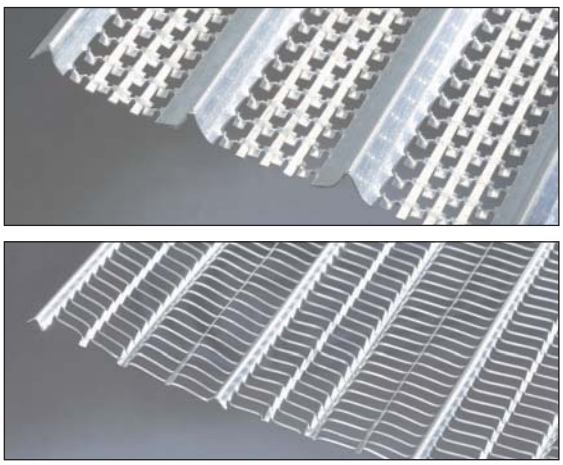
pages 129 – 132



LinkFix stopend panel

Profile according to DIN 1045-1 and EC 2

page 133



Rib laths

pages 133 – 134

MURO-Top

Damp proof course

The barrier against rising damp.

MURO-Top damp proof courses

- made of the highly-resistant material polyolefin
- protect foundation walls and masonry reliably and permanently against rising damp
- profiled on both sides
- resistant to many media
- installed in a single layer with only 20 cm overlap at joint
- foils with a thickness of less than 1.2 mm are not suitable for applications requiring a General Building Supervisory Test Certificate

MURO-Top damp proof course

Sizes MURO-Top

Art. No.	Roll width cm	Roll length m	per roll m²	Roll weight kg	Rolls per pallet	Price €/m²	Price €/roll
041115	11.5	50	5.75	approx. 1.65	500	**0.87**	**5.00**
041150	15.0	50	7.50	approx. 2.10	400	**0.87**	**6.53**
041175	17.5	50	8.75	approx. 2.45	350	**0.87**	**7.61**
041200	20.0	50	10.00	approx. 2.80	300	**0.87**	**8.70**
041240	24.0	50	12.00	approx. 3.40	240	**0.87**	**10.44**
041250	25.0	50	12.50	approx. 3.50	240	**0.87**	**10.88**
041300	30.0	50	15.00	approx. 4.20	200	**0.87**	**13.05**
041365	36.5	50	18.25	approx. 5.15	160	**0.87**	**15.88**
041425	42.5	50	21.25	approx. 5.95	150	**0.87**	**18.49**
041500	50.0	50	25.00	approx. 7.00	120	**0.87**	**21.75**
041750	75.0	50	37.50	approx. 10.50	100	**0.87**	**32.63**
041000	100.0	50	50.00	approx. 14.00	80	**0.87**	**43.50**

MURO-Top technical data

Material: Polyolefin, roughly textured on both sides

Thickness: 0.3 mm, 0.35 mm including profile

Weight: Approx. 280 g/m²

Temperature range: -30°C to +60°C

Resistance:

- watertight
- bitumen-compatible
- petrol-resistant
- ground water-resistant
- alkali-resistant
- rotproof
- diesel-resistant
- ground water-neutral

MURO-Premium

Damp proof course

Sizes MURO-Premium

Art. No.	Roll width cm	Roll length m	per roll m²	Roll weight kg	Rolls per pallet	**Price €/m²**
042115	11.5	25	2.88	approx. 5.5	200	**4.10**
042175	17.5	25	4.38	approx. 8.3	120	**4.10**
042200	20.0	25	5.00	approx. 9.5	100	**4.10**
042250	25.0	25	6.25	approx. 11.9	80	**4.10**
042300	30.0	25	7.50	approx. 14.3	80	**4.10**
042365	36.5	25	9.13	approx. 17.3	60	**4.10**
042425	42.5	25	10.63	approx. 20.2	60	**4.10**
042500	50.0	25	12.50	approx. 23.8	40	**4.10**
042750	75.0	25	18.75	approx. 35.6	40	**4.10**
042999	100.0	25	25.00	approx. 47.5	20	**4.10**

Technical data

Material: PVC foil 1.2 mm, not compatible with bitumen, textured

Weight: Approx. 1.9 kg/m²

Resistance:

- waterproof 24 h/60 kPa
- waterproof during ageing
- waterproof in contact with alkalinity
- resistance to static loads ≥ 20 kg
- impact loading ≥ 300 mm
- tear resistance > 50 kN

Application

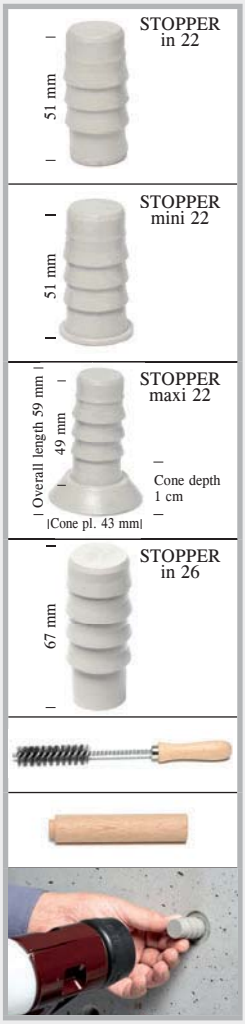
MURO-Premium damp proof courses are installed in a single layer with only 20 cm overlap at joint. The sheets can be joined using solvent welding agent.

Waterproofing for plastic and fibre cement distance tubes

STOPPER inner seal

STOPPER pack

Art. No.	Description	Packaging	Weight kg/bucket	Price €/pc.
046140	**STOPPER in 22** for distance tubes inner diameter 21.5 – 23 mm	250 pcs. in bucket	6.00	**0.84**
046150	**STOPPER mini 22** for distance tubes inner diameter 21.5 – 23 mm	250 pcs. in bucket	6.00	**0.84**
046160	**STOPPER maxi 22** for distance tubes inner diameter 21.5 – 23 mm	250 pcs. in bucket	9.00	**1.02**
046163	**STOPPER in 26** for distance tubes ID 26 mm	250 pcs. in bucket	10.50	**1.15**
046170	**Cleaning brush** for tube 21.5 – 26 mm	1	0.11	**9.80**
046180	**Drive-in aid** for STOPPER 22 + 26 mm	1	0.10	**3.40**



Use a 1500 – 2000g hard rubber hammer to drive in the STOPPER.

ActiveRing external waterproofing

Art. No.	Description	Packaging	Weight kg/bag	Price €/pc.
047200	**ActiveRing mini** for outer pipe diameters 25 – 32 mm e.g. plastic distance tubes 22/26 26/31 26/32	250 pcs. per bag	1.70	**0.47**
047250	**ActiveRing maxi** for outer pipe diameters 38 – 42 mm e.g. fibre cement distance tubes	250 pcs. per bag	2.40	**0.56**

ActiveRing mini

ActiveRing maxi

RONDO MINI

Art. No.	Type	Description	Pcs. per pack	Weight per pc./kg	**Price €/pc.**
090870	**RONDO MINI 26** Suitable for outer dia. 25 – 27 mm	for plastic distance tubes 22/26 mm Waterstop 2 cm Bearing width 2.7 cm	50 pcs. per bag incl. plastic fastening straps	0.030	**1.25**
090873	**RONDO MINI 40** Suitable for outer dia. 38 – 42 mm	for fibre cement distance tubes 22/40 mm Waterstop 2 cm Bearing width 2.7 cm	50 pcs. per bag incl. plastic fastening straps	0.040	**1.35**

STOPPER
Product description

YouTube INSTALLATION FILM

Pressure-tight sealing plugs for distance tubes made of fibre cement or plastic

STOPPER maxi 22

STOPPER mini 22

STOPPER in 22

STOPPER in 26

- STOPPERs are plugs which were developed for pressure-tight sealing of fibre cement and plastic distance tubes.
- High-strength plastic specially developed for this application
- Temperature range -35°C to +70°C

  If the plugs are installed at ambient temperatures below 0°C, they have to be stored before above freezing point for a better installation.
- All-weather installation
- Just drive them in and they are tight
- Little storage space required

Tests

Water

Tube type	STOPPER maxi 22 water column	STOPPER mini 22 water column	STOPPER in 22 water column	STOPPER in 26 water column	Result when sealed on both sides
Plastic distance tube inner diameter approx. 21.5 – 23 mm	50 m	50 m	30 m	–	No water flow
Fibre cement distance tube inner diameter approx. 22 mm, round	40 m	40 m	20 m	–	No water flow
Steel distance tube inner diameter approx. 22.45 mm, round	40 m	40 m	20 m	–	No water flow
Steel distance tube inner diameter approx. 23 mm, round	30 m	30 m	20 m	–	No water flow
Plastic distance tube inner diameter 26 mm	–	–	–	50 m	No water flow

Fire

- Fire resistance class EI 120 as per DIN EN 13501-2

  Room closure test with fibre cement distance tubes

  For the duration of the test (120 minutes), no cracks or gaps developed on the room side. During this time, no flames were visible on the side facing away from the fire.

- Construction material class DIN EN 13501-1 E = normally flammable
  DIN 4102-1 B2 = normally flammable

Resistance

As well as undergoing a comprehensive slurry/liquid manure/silage effluent test, the plastic is also resistant to several media:

- Slurry
- Liquid manure
- Silage effluent
- Fermentation mash
- Radon + methane gas
- UV radiation
- Ozone
- Bitumen

After consultation on the composition

- Diluted acids + alkalis
- Oils

Installation of STOPPER in

The STOPPER in is pushed into the distance tube.

The STOPPER in is driven in with a 1500 – 2000 g hard rubber mallet.

Flush seal for distance tubes with lip.

Flush seal for distance tubes with cone.

The STOPPER in can be inserted to any depth.

After inserting the STOPPER in, a cone can be glued in.

Installation of STOPPER mini

Position and drive in the STOPPER mini

Sealing of distance tube with lip

Sealing of distance tube with cone

Installation of STOPPER maxi

Push the STOPPER maxi into the distance tube

Drive in with rubber mallet

Pressure-tight and flush seal

ActiveRing

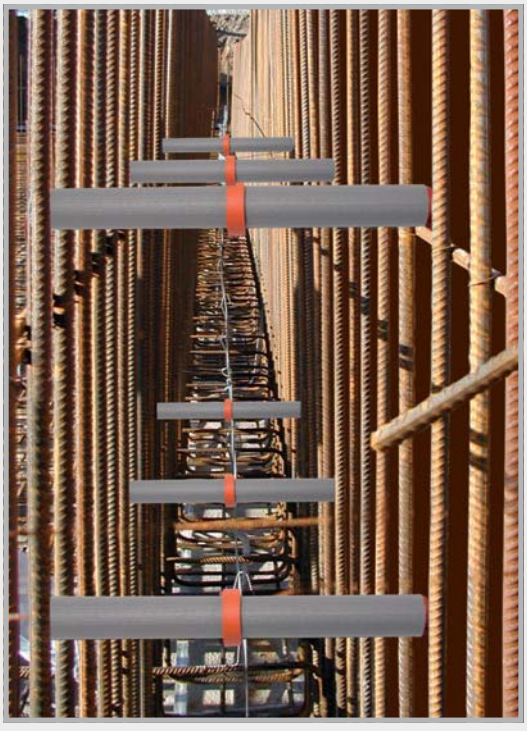
The swelling external high-pressure seal for plastic and fibre cement distance tubes

High-pressure seal for up to 8 bar

The ActiveRings mini and maxi ensure reliable and durable external waterproofing for plastic and fibre cement distance tubes.

- Pressure test performed by MFPA Leipzig
- Easy and secure installation
- Good chemical resistance
- Very cost-effective
- Push on and seal

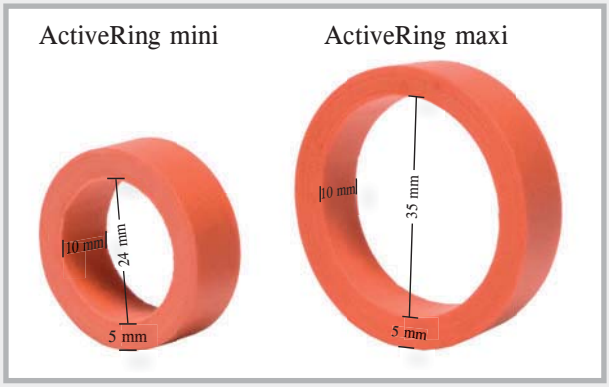
YouTube
INSTALLATION FILM



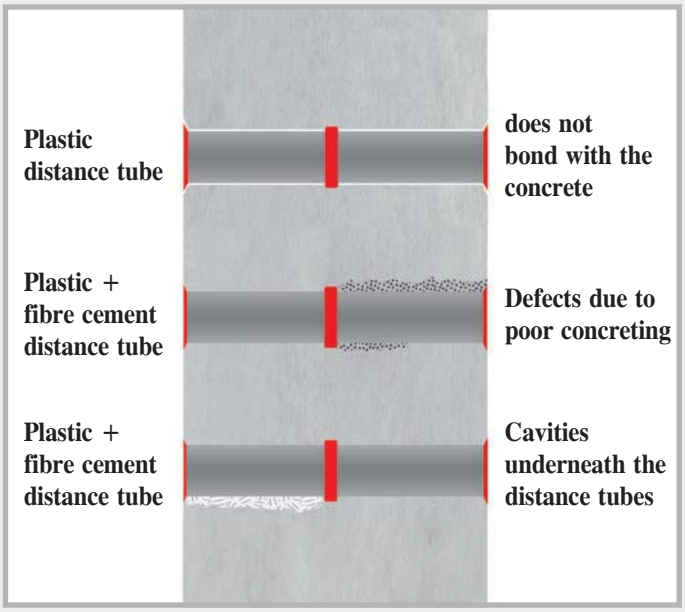
ActiveRing on plastic distance tubes

Product description for ActiveRings

The ActiveRings mini and maxi are made of a highly swellable TPE mixture. When the rings come into contact with water, they activate, swell up and reliably stop the flow of water.

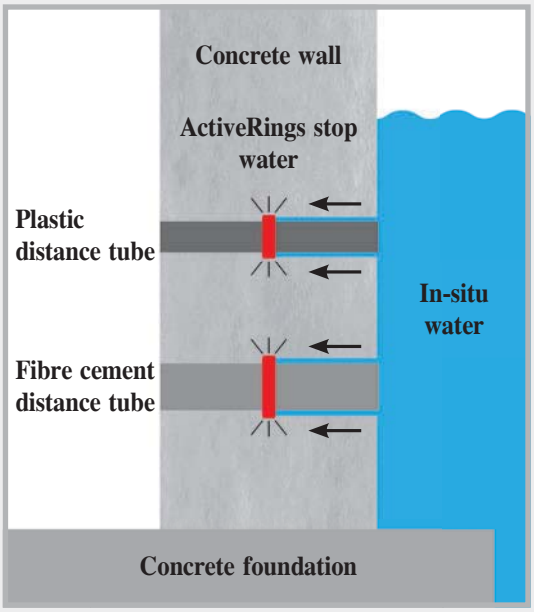


Causes of leaking distance tubes



There are many causes which lead to leaking distance tubes. Plastic generally does not bond with concrete. The plastic breaks off and opens the way for water. The second main reason is poor concreting. Not only are plastic distance tubes affected, but also those made of fibre cement.

ActiveRings provide security Function



This is how ActiveRings work:
When the rings come into contact with water, they activate and stop the flow of water.
The waterproofing remains permanently active when in contact with water.

Technical data

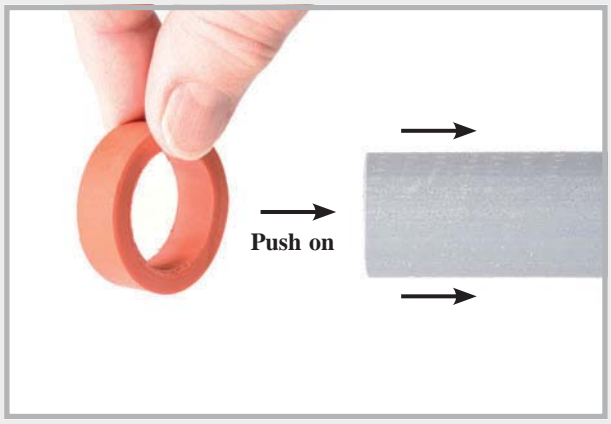
Chemical basis:	Modified TPE
Colour:	Red
Finish:	Smooth
Dimensions:	Width 10 mm, thickness 5 mm
For outer pipe diameters 25–32:	mini version
For outer pipe diameters 38-42:	maxi version
Temperature range:	-30 °C to +60 °C
Storage:	Dry and protected
Function:	Highly swellable

Resistance

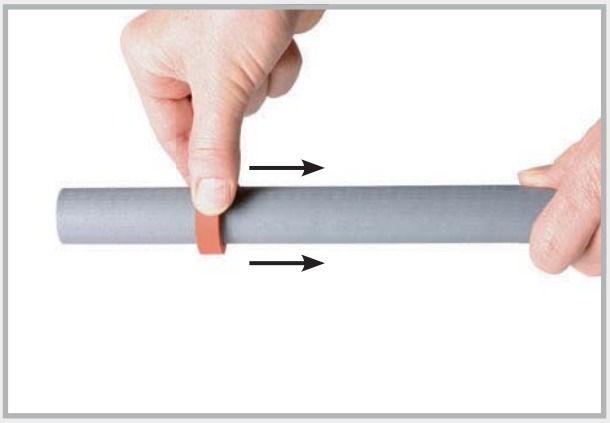
- Diluted acids and alkalis
- Salt water
- Methane gas + radon
- Liquid manure + slurry
- Fermentation mash + biogas
- Concrete alkalinity
- Liquid aggressive to concrete

Quick and secure installation

The surfaces of the pipes must be clean.



The ActiveRing is pushed onto the distance tube which requires waterproofing.



Position the ActiveRing towards the middle

ActiveRings on different distance tubes

Plastic pipe	22/26 and 26/32
Fibre cement pipe	22/40

At the construction site

Wall formwork from above

Concreting in the distance tube with Active-Ring.

RONDO MINI sealing collars

for waterproofing of plastic or fibre cement distance tubes

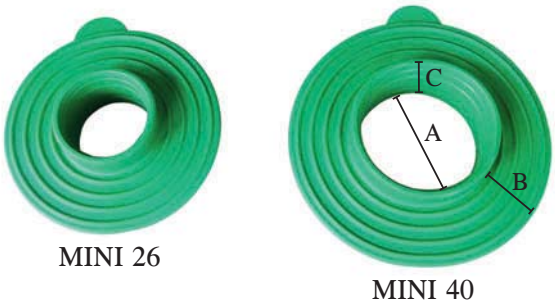
RONDO MINI sealing collars can be mounted onto plastic or fibre cement distance tubes quickly and easily at the construction site.

Product description

Material: TPE polymer compound
Installation: Temperature range -35°C to +70°C

Resistance:

- Diluted acids + alkalis
- Liquid manure + slurry
- Fermentation mash
- Oils and bitumen
- Radon + methane gas

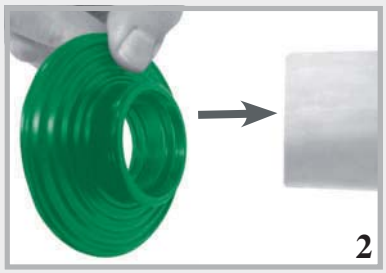


MINI 26 MINI 40

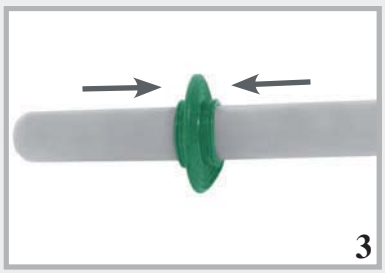
A Pipe slot with additional waterstops
B Waterstop 2 cm
C Bearing width 2.7 cm

Quick and easy installation

Fibre cement distance tube, RONDO MINI, 2 fastening straps



Slide the RONDO MINI onto the distance tube



Position RONDO MINI in the centre before fastening

Tighten both fastening straps by hand

The fastening straps can also be tightened using pliers

RONDO MINI installation complete

IMPACT SOUND INSULATION + CORRUGATED BEARINGS

Impact sound insulation T1

Product description

Material:	The impact sound insulation T1 is made of fine mixed elastomer fibres bonded with PUR.	
Application:	As bearing for stairs and slabs	
Presentation:	Rolls, strips and boards	
Testing:	Load test	for thickness 10 mm up to 5 N/mm^2
	Impact sound reduction	up to 19 dB
Temperature resistance:	-40°C to +90°C	
Elongation at break:	>70%	
Reaction to fire:	Class E	
Environmental aspects:	UV-resistant	

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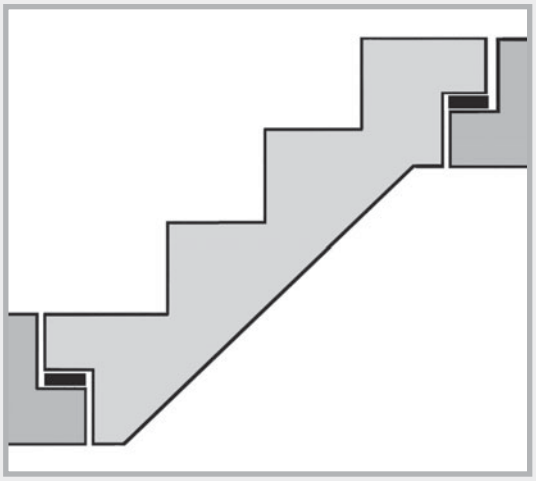


Impact sound insulation T1, e.g. for bearing of staircases

Installation without offcuts

Unroll T1

Measure required length

Simply cut off with the cutter.

Impact sound insulation T1

Rolls

Art. No.	Description	Presentation	Weight kg	Price €
060240	**Impact sound insulation roll T1** size: 10000 x 100 x 5 mm	Rolls	4.40 kg per roll	**5.00/m**
060230	**Impact sound insulation roll T1** size: 10000 x 100 x 10 mm	Rolls Pal. 60 rolls	9.70 kg per roll	**7.30/m**
060115	**Impact sound insulation roll T1** size: 10000 x 1250 x 10 mm	Rolls	8.60 kg per m²	**49.50/m²**

Strips

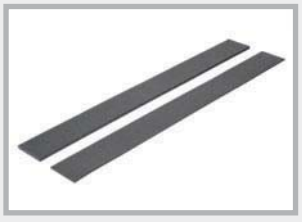
Art. No.	Description	Presentation	Weight kg	Price €
060200	**Impact sound insulation strip T1** size: 1000 x 100 x 5 mm	Strips	0.44 kg per strip	**5.00/m**
060210	**Impact sound insulation strip T1** size: 1000 x 100 x 10 mm	Strips Pal. 750 str.	0.90 kg per strip	**7.30/m**

Boards

Art. No.	Description	Presentation	Weight kg	Price €
060100	**Sound insulation board T1** size: 1000 x 1000 x 5 mm	Boards	4.60 kg per board	**30.90/m²**
060110	**Sound insulation board T1** size: 1000 x 1000 x 10 mm	Boards	9.00 kg per board	**49.50/m²**
060113	**Sound insulation board T1** size: 1000 x 1000 x 20 mm	Boards	18.00 kg per board	**93.70/m²**

Art. 060240
Art. 060230

Art. 060115



Art. 060200
Art. 060210

Art. 060100
Art. 060110
Art. 060113

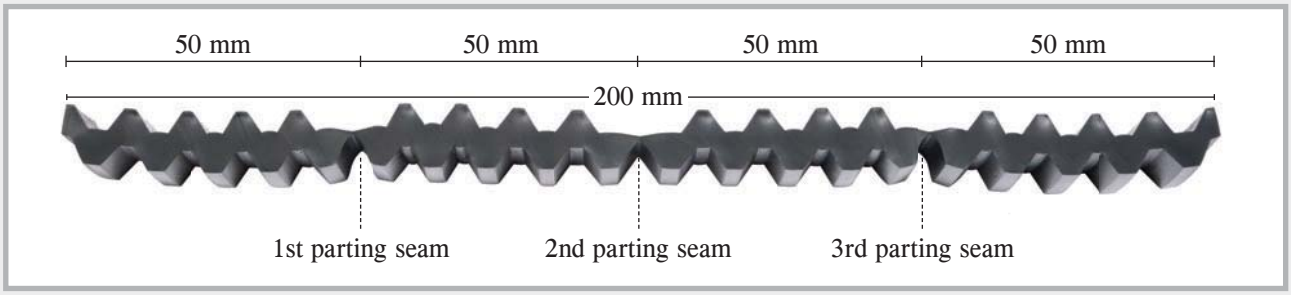
Corrugated bearing

Product description

Material: The corrugated bearing is a profiled bearing based on EPDM.

Application: For bearing of stairs and slabs
Bearing of prefabricated elements

YouTube INSTALLATION FILM



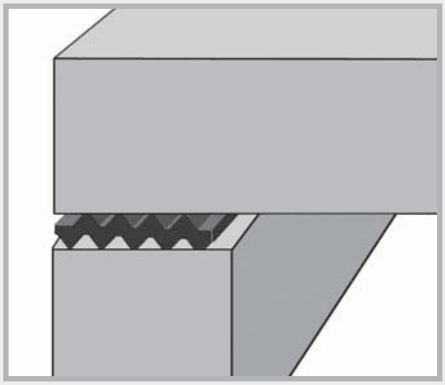
Presentation: Rolls

Testing: Load test up to 5 N/mm²
Impact sound reduction up to 20 dB

Temperature resistance: -40°C to +90°C

Elongation at break: >300%

Environmental aspects: UV-resistant



Corrugated bearing between two constructional elements

Product range - corrugated bearing

Art. No.	Description	Packaging	Weight kg	**Price €**
060010	**Corrugated bearing 10 mm** size: 10000 x 200 x 10 mm with 3 parting seams	Rolls	16.0 kg per roll	**126.50/m²**

Application

Corrugated bearing

The corrugated bearing can be cut with a cutter. Cut into the parting seam, the corrugated bearing can then be processed.

Over a width of 20 cm the corrugated bearing has 3 parting seams. This enables bearing widths of 5, 10, 15 and 20 cm.

Construction bearing R1

Product description

Material:	NR-SBR copolymer
Application:	Separation of 2 constr. elements Bearing of staircases Levelling out of unevenness
Presentation:	Boards + strips
Temperature resistance:	-25°C to +70°C
Elongation at break:	>200%

Product range - construction bearing R1

Strips

Art. No.	Description	Presentation	Weight kg	**Price €**
060340	**Construction bearing strip R1** size: 1000 x 100 x 5 mm	Strips	0.75 kg per strip	**5.10/m**
060330	**Construction bearing strip R1** size: 1000 x 100 x 10 mm	Strips	1.60 kg per strip	**7.90/m**

Boards

Art. No.	Description	Presentation	Weight kg	**Price €**
060310	**Construction bearing board R1** size: 1200 x 1000 x 5 mm	Boards	9.50 kg per board	**42.10/m²**
060300	**Construction bearing board R1** size: 1200 x 1000 x 10 mm	Boards	18.00 kg per board	**61.60/m²**

Tailor-made sizes available at short notice

060340 + 060330

060310 + 060300

YouTube INSTALLATION FILM

Rib laths

Lost formwork for construction joints in concrete

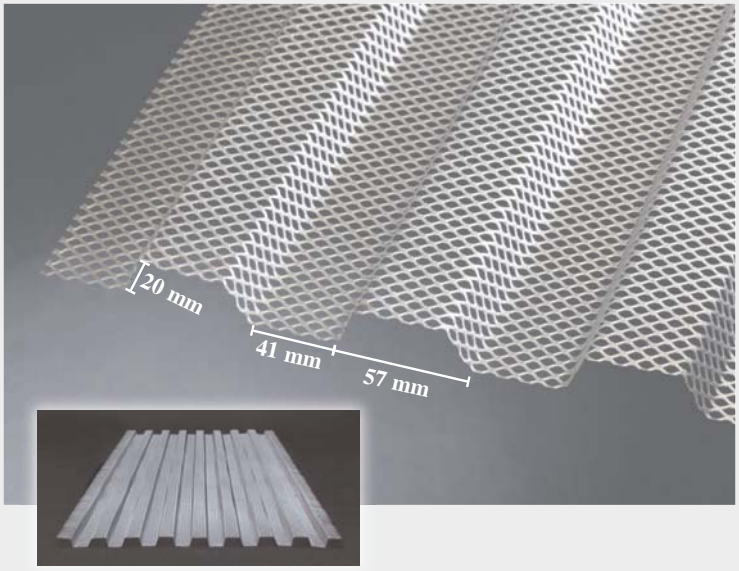
LinkFix stopend panel

Profiled rib lath formwork as stopend panel for construction joints.

Material: Profiled rib lath formwork of bright steel, thickness 0.75 mm. The profile corresponds to DIN1045-1 and EC2 and is therefore to be classified as an interlocking construction joint.

Profile: 57 x 41 x 20 mm

Sheet size: Length: 240 cm
Width: 80 cm



Art. No.	Description	Packaging	Weight kg	**Price / €**
020050	**LinkFix** **Thickness 0.75 mm** size: 240 x 80 cm	100 pcs. per pallet 192 m²	530 kg/pallet m² approx. 2.6 kg	**11.90/m²**

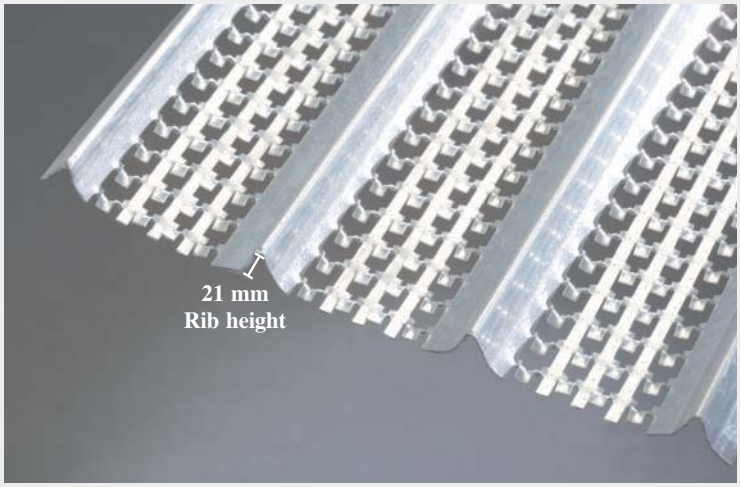
Rib lath formwork, high-ribbed

Lost formwork for construction joints.

- Developed for concrete construction
- Extremely stable
- Perfect bond between concrete segments
- Very good malleability

Material: Galvanised

Rib height: 21 mm



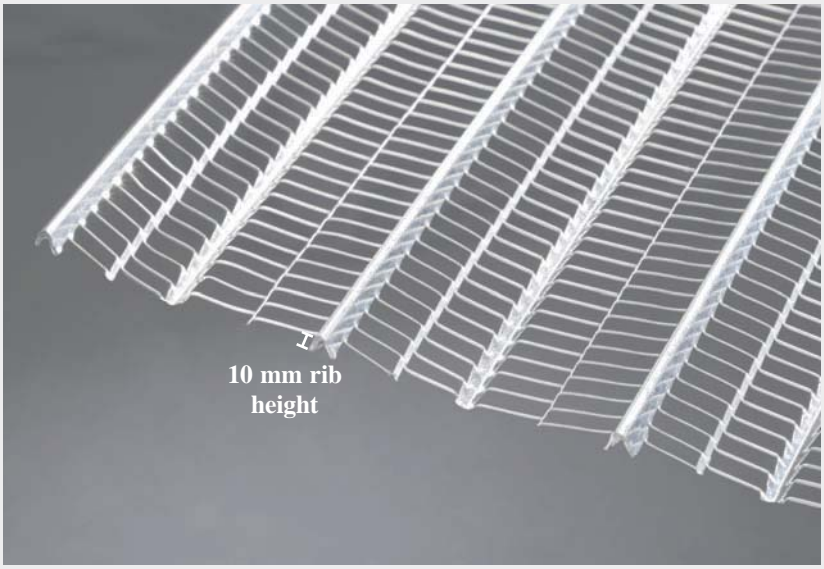
Art. No.	Description	Packaging	Weight kg	**Price / €**
020005	**High-ribbed** **Thickness 0.3 mm,** galvanised size: 200 x 45 cm, rib height 21 mm identification colour: green	200 pcs. per pallet 180 m² secondary packaging 3 pallets	480 kg/pallet approx. 2.7 kg/m²	**7.20/m²**
020010	**High-ribbed, thickness 0.4 mm,** galvanised size: 200 x 45 cm, rib height 21 mm identification colour: blue	100 pcs. per pallet 90 m² secondary packaging 5 pallets	306 kg/pallet approx. 3.4 kg/m²	**8.70/m²**
020020	**High-ribbed, thickness 0.5 mm,** galvanised size: 200 x 45 cm, rib height 21 mm identification colour: red	100 pcs. per pallet 90 m² secondary packaging 4 pallets	360 kg/pallet approx. 4 kg/m²	**9.80/m²**

Rib lath formwork, medium-ribbed

Lost formwork for construction joints. CE

- Effective bond between concrete segments
- Good malleability

Material: Galvanised
Rib height: 10 mm
Sheet size: Length: 250 cm
Width: 60 cm



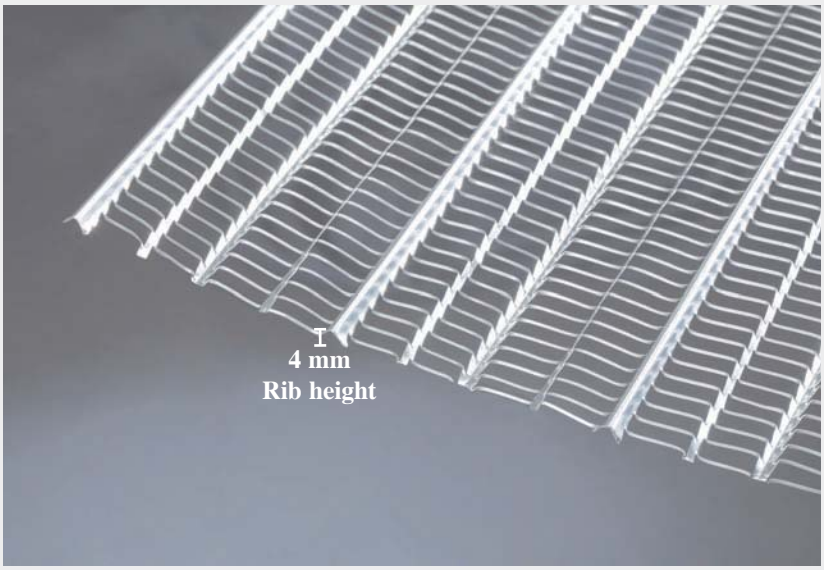
Art. No.	Description	Packaging	Weight kg	**Price €**
020040	**Thickness 0.30 mm,** galvanised size: 250 x 60 cm = 1.5 m² rib height approx. 10 mm identification colour: black	20 sheets/package = 30 m² 25 packages/pallet = 750 m²	Approx. 36 kg per package 1.20 kg/m²	**5.60/m²**
020042	**Thickness 0.50 mm,** galvanised size: 250 x 60 cm = 1.5 m² rib height approx. 10 mm identification colour: white	10 sheets/package = 15 m² 25 packages/pallet = 375 m²	approx. 30 kg per package 2.00 kg/m²	**8.90/m²**

Rib lath formwork, flat-ribbed CE

Lost formwork

- Effective bond between concrete segments
- Highly malleable

Material: Galvanised
Rib height: 4 mm
Thickness: 0.25 mm
Weight: 0.88 kg/m²
Sheet size: Length: 250 cm
Width: 60 cm



Art. No.	Description	Packaging	Weight kg	**Price €**
020045	**Thickness 0.25 mm,** galvanised size: 250 x 60 cm = 1.5 m² rib height approx. 4 mm identification colour: yellow	20 sheets/package = 30 m² 30 packages/pallet = 900 m²	approx. 24 kg per package 0.80 kg/m²	**3.70/m²**

Shipping costs for deliveries ex works

Dispatch via forwarding agent in Germany

Art. No.	Dispatch type	Weight	Price
900111	Forwarding costs	up to 60 kg	**€ 36.00 all-inclusive**
900112	Forwarding costs	61 – 150 kg	**€ 48.00 all-inclusive**
900113	Forwarding costs	151 – 300 kg	**€ 65.00 all-inclusive**
900114	Forwarding costs	301 – 500 kg	**€ 85.00 all-inclusive**
900115	Forwarding costs	501 – 700 kg	**€ 99.00 all-inclusive**
900116	Forwarding costs	701 – 900 kg	**€ 114.00 all-inclusive**
900117	Forwarding costs	901 – 1100 kg	**€ 126.00 all-inclusive**
900118	Forwarding costs	> 1100 kg	**€ 0.12 /kg**

Transit times: Shipments of lengths up to 2.4 m approx. 2 – 3 days
Shipments of lengths greater than 2.4 m approx. 3 – 4 days
The transit time does not include the day on which the order is placed

Dispatch via forwarding agent in Germany – premium services up to max. 3000 kg

Art. No.	Dispatch type	Price
900015	"Next Day" forwarding costs	**+ € 49.00 per shipment**
900020	Next working day delivery by 8 pm	**+ € 134.00 per shipment**
900025	Next working day delivery by 10 pm	**+ € 93.00 per shipment**
900030	Next working day delivery by 12 pm	**+ € 67.00 per shipment**
900033	Delivery fixed on a specific day between 2 – 5 workdays	**+ € 29.00 per shipment**

Parcel shipment in Germany

Parcel weight up to 30 kg – transit time 2 – 3 days

Art. No.	Dispatch type	Weight	Price
900040	DPD normal parcel	30 kg	**€ 12.00**
900050	DPD Express 6:00 pm	30 kg	**€ 27.00**
900070	DPD Express 12:00 pm (midday)	30 kg	**€ 35.00**
900060	DPD Express 10:00 am	30 kg	**€ 41.00**
900051	DPD Express 8:30 am	30 kg	**€ 54.00**
900052	DPD Express Saturday by 12:00 pm (midday)	30 kg	**€ 45.00**
900100	Shipping to an island (Express is not possible when shipping to an island)	30 kg	**€ 25.00**
900200	Expenditure allowance for orders less than € 75		**€ 8.00**

Coordinate express deliveries with our sales department.
The feasibility of every express delivery must be checked and confirmed.

Shipping costs for deliveries ex works

Parcel shipment in Europe

Country	Belgium Netherlands Luxemburg Austria	Denmark Switzerland Czech Republic	France Monaco Great Britain	Italy Poland Slovakia Slovenia Hungary	Sweden Ireland Spain Portugal	Estonia Finland Latvia Lithuania Norway	Bosnia and Herzegovina Croatia Serbia	Bulgaria Romania Iceland Greece
Transit time days	1-2 days	1-3 days	2-3 days	3-5 days	3-5 days	3-5 days	3-6 days	3-6 days
up to 15 kg	**€ 16**	**€ 18**	**€ 21**	**€ 23**	**€ 29**	**€ 34**	**€ 37**	**€ 47**
up to 30 kg	**€ 22**	**€ 25**	**€ 27**	**€ 29**	**€ 37**	**€ 41**	**€ 44**	**€ 57**

Payment of duty: Switzerland, Liechtenstein, Iceland, Norway € 30

Parcel dispatch in Europe with Express Europe

Country	Belgium Netherlands Luxemburg Austria	Denmark Switzerland Czech Republic	France Monaco Great Britain	Italy Poland Slovakia Slovenia Hungary	Sweden Ireland Spain Portugal	Estonia Finland Latvia Lithuania Norway	Bosnia and Herzegovina Croatia Serbia	Bulgaria Romania Iceland Greece
0 – 7.5 kg	**€ 60**	**€ 70**	**€ 75**	**€ 80**	**€ 85**	**€ 90**	**€ 90**	**Not possible**
7.5 – 15 kg	**€ 75**	**€ 89**	**€ 96**	**€ 106**	**€ 110**	**€ 115**	**€ 120**	**Not possible**
15 – 22.5 kg	**€ 90**	**€ 109**	**€ 119**	**€ 130**	**€ 135**	**€ 140**	**€ 150**	**Not possible**
22.5 – 30 kg	**€ 109**	**€ 133**	**€147**	**€ 157**	**€ 166**	**€ 170**	**€ 190**	**Not possible**

Coordinate express deliveries with our sales department.
The feasibility of every express delivery must be checked and confirmed.

Conditions of Sale

Status October 1st, 2017

The following conditions apply to all quotations and sales. The Buyer accepts them by acceptance of our quotations/invoices.

1. Quotations, recommendations, advice
Our quotations are valid in case of immediate acceptance only, otherwise they are without obligation. Stock information is given without any commitment.
Samples and specimens are for guidance only and without any commitment. Recommendations and advice are given to our best knowledge, but without obligation. We will not be liable due to defaulted or insufficient advice, regardless of whether or not the Buyer had asked for advice.

2. Invoicing
If not otherwise agreed and stated, invoicing is always done at our prices valid on the day of dispatch, ex warehouse, not including the statutory value added tax.

3. Shipment and passage of risk
The Vendor effects shipment for the Buyer with due care. Liability, however, is limited to intent and gross negligence. Shipment is effected via a parcel service or a forwarding agent. The goods are insured according to the relevant conditions of the carrier and the extent of the carrier's insurance. In case of collection of the goods, the risk passes to the Buyer at the time of handing over of the goods.

4. Delivery
Periods of delivery that have been agreed upon are approximate only, unless a fixed date has been agreed in writing. Should we have not been able to deliver even after having been granted an additional respite of min. two weeks in written form, the Buyer is entitled to withdraw from the contract. Other claims arising from delayed delivery are inadmissible. Acts of God like strikes, plant closures, plant interruptions, transportation problems due to lack of vehicles or containers, railway and road blocks as well as all events beyond our control shall exempt us from our delivery commitments for the duration of the obstacles.

5. Return of goods
Goods may be returned with prior consent of MASTERTEC GmbH & Co. KG only. Goods which are not defective will be accepted in impeccable original condition only. 15% of the value of the goods, but minimum € 20 will be deducted from the credited amount. Return shipments sent freight collect will not be accepted. The return shipment is effected at the buyer's risk.

6. Payment
The terms of payment are based upon an agreement. Should a cash discount be granted, the pre-condition is that payment of all previous invoices is settled. The cash discount is granted on the net invoice amount only. Default shall occur without prior reminder if the period allowed for payment is exceeded or in case of incomplete payment. We are entitled to charge default interest of min. 3% above the relevant bank rate of the German Central Bank as of the due date, irrespective of any other claims. Should the Buyer's creditworthiness turn out to be insufficient after conclusion of the contract, the Vendor is entitled to demand – at his own option – advance payment or provision of security for due or undue claims from all existing contracts and to refuse fulfillment until receipt of the advance payment or provision of security for due or undue claims from all existing contracts and to refuse fulfillment until receipt of the advance payment or provision of security.

7. Retention of title
Goods remain our property until receipt of complete payment (in case of payment by cheque/bill of exchange until final encashment). The title will not pass to the Buyer before all debts arising from consignments have been paid. For open accounts the retention of title serves as a security for our balances receivable.
The Buyer is entitled to sell the goods in the orderly course of business. The goods must neither be pledged nor assigned by way of security. The Buyer shall inform us without delay of any other interference with our rights by third party. If the Buyer sells the goods delivered by us, he assigns to us his receivables resulting from the sale including all accessory rights until complete discharge of liabilities to us.
Goods under retention of title shall always be processed to the exclusion of any acquisition of title under § 950 of the German Civil Code. Processing is done by the Buyer on the Vendor's behalf but without incurring any commitment on the Vendor's part.
In the event of any processing by the Buyer, the Vendor shall have the right of co-title to the new product to the amount of the invoice value of the processed goods under retention of title.

8. Notice of defect and warranty
The Buyer can file complaints only before use, sale or mixing of the goods. Complaints are to be filed within 8 days after receipt of the goods in written form. Notice of defects detected after that period must be filed to us immediately, i.e. without undue delay, in writing and can be recognised only if detection was impossible by inspection within a period of 8 days after receipt. Complaints filed after one month after receipt of the goods are not admissible under any circumstances.
In any case, defects detectable by proper inspection before use, sale or mixing of the goods can only be claimed if the rejected goods are still in the packaging used by us.
In case of a justified complaint, the Buyer has the right of exchange of the goods. Claims for cancellation of sale, reduction of the purchase price or damages as well as claims for compensation for any consequentional damage are not admissible.

9. Damages
Any claims for damages by the Buyer that may arise directly or indirectly from ordering, delivery or use of our goods, regardless of the legal basis, are inadmissible, provided that we, our assistants, or our agents have not caused the damage by gross negligence or intention.
In case of damage caused by gross negligence, the claim for damages of a Buyer who is a merchant is limited to the compensation of the anticipated damage. Any claim for damages because of delayed performance or impossibility of performance due to slight negligence from a Buyer who is not a merchant will not be considered.

10. Place of fulfillment and jurisdiction
The place of fulfillment for deliveries (also for deliveries free domicile) is the relevant place of shipment, for payment Oberhaid as the Vendor's place of business.
The place of jurisdiction for all parties, also for suits upon bills or cheques is Bamberg. The Vendor is free to choose another admissible place of jurisdiction.

Items made to order (materials from object-related production) are barred from repurchase.

Notes on the price list
All prices exclusive of VAT. We cannot be held responsible for misprints.

Oral and written advice is non-binding.
All prices are non-binding recommended sales prices.

The prices charged are those valid on the day of dispatch. No part of this publication may be reproduced without our prior permission.

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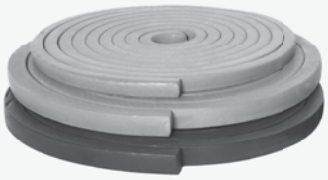
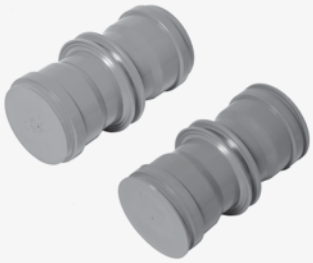


Swelling tapes

Joint sheet metal

Injection hoses



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