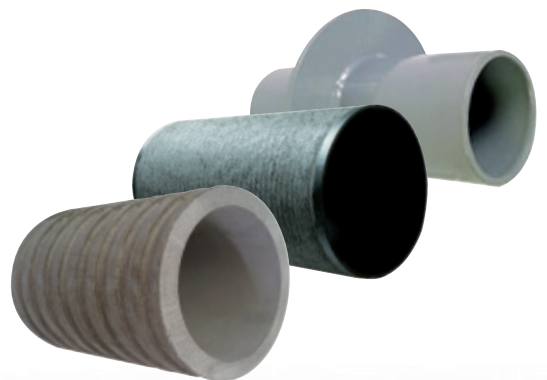




Pipeline Accessories

ANODE
ENGINEERING

Wall Sleeves and
Coatings 4 pipes



Wall Sleeves Fibre Cement 4 pipes



**MFPA
tested**

Wall sleeves, fiber cement, plastic, steel

The wall sleeves serve in combination with our Pressio and Pressio-Elements Seals to penetrate carrier pipes of any material (copper, steel, cast iron or plastic) through walls, ceilings and floors. They form a perfect wall opening for the seals, so an optimum sealing is guaranteed.

Wall sleeve of asbestos-free fibre cement

- Colour light grey
- Grooves outside all around
- Smooth inside walls

The sleeve which consists of concrete and glass fibre is water pressure tight, non-flammable, corrosion resistant and electrically insulating. They are extremely firm, which means they can be coated and perfectly bonded to concrete so that it is possible to cast into concrete or into a wall. For the use in concrete tanks or containers the wall sleeve can be coated. Watertight fitting with mortar in a wall breakthrough is also possible.

Sizes:

DN 80 up to DN 800, length of 200 mm up to 1500 mm***

Inside diameter in mm*												
80	100	125	150	200	250	300	350	400	500	600	700	800
Outside diameter in mm**												
135	144	166	195	245	304	352	400	458	569	671	769	879

Please find all standard dimensions and length in our latest pricelist.

****Outside diameter are subject to tolerances of ± 8 mm**

*****DN 500 up to DN 800 max. manufacturing length**

L=960 ± 20 mm tolerance

Please consider the following advice if adjustments at the fibre cement wall sleeve have to be done on site:

1. **Always wear a mask when cutting/working on the sleeve**
2. **Cut/work on fibre cement only wet** and only with hand-operated or slow moving machines with dust trashrack

Minimum 50 mm projecting wall sleeves can be integrated into an existing bitumen sealant in a professional way.



PE end cap

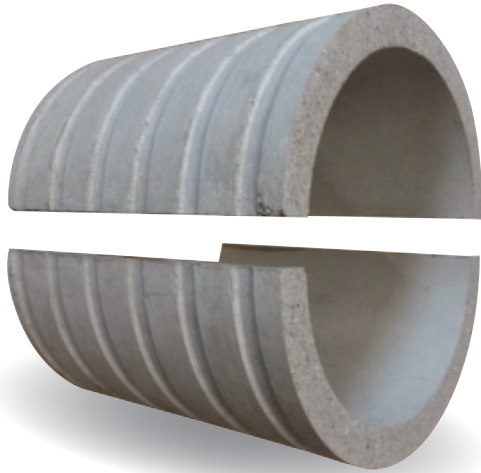
for wall sleeves 4 pipes with a ID 80 mm up to 300 mm

Ø ID Wall sleeve in mm*	Art.-No.
80	13020
100	13021
125	13022
150	13023
200	13024
250	13025
300	13026

***Tolerances ID ± 2 mm**

The 4 pipes warranty only applies to faulty material. Checking the suitability of the product for the individual application is solely the responsibility of the user.

Split Wall Sleeve Fibre Cement 4 pipes



Product Information

Split wall sleeve fibre cement

Split fibre cement wall sleeves 4 pipes are available in dimensions from 100 to 800 mm for retrofit purposes.

The two half shells are bonded together on site with a special Epoxy adhesive.

The wall sleeve is supplied in two exact half shells, which provide one round sleeve without any gap or ovality.

To bond the surfaces, these must be clean, dry and free from oil or grease.

The epoxy adhesive is mixed well in the package and applied to the cement edges. Afterwards the two half shells are joined and pressed together with fastening straps or binding wire.

Special spacers between the surfaces are not necessary.

24 hours after joining, the wall sleeve can be cast into concrete.

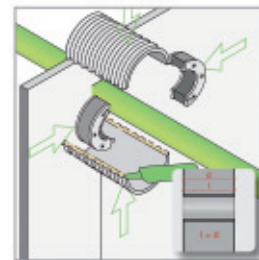
Wall sleeve of asbestos-free fibre cement

- Colour light grey
- Grooves outside all around
- Smooth inside walls

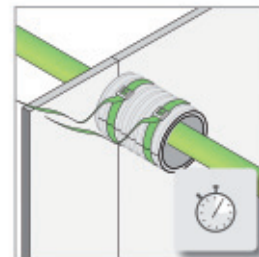
The sleeve, which consists of concrete and glass fibre, is water pressure tight, non-flammable, corrosion resistant and electrical insulating. They feature a high firmness, able to be coated and perfect bond to concrete so that it is possible to cast in concrete or into a wall. For the use in concrete tanks or containers the wall sleeve can be coated. Also the water tight fitting with mortar in a wall breakthrough is possible.

» Availability only on request «

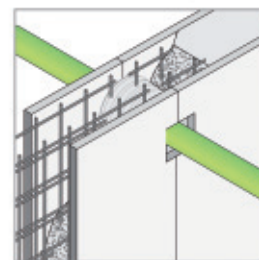
Application instructions for split fibre cement wall sleeves



1. Mix epoxy kit and apply epoxy out of the bag on the edge of the half-shells and join the two halves. Smoothen excessive epoxy with a cloth inside and outside. Centre the half-shells with the wall penetration seal if available.



2. Fix the half-shells with a fastening strap or steel wire. Make sure the curing time is not less than three hours before filling in the concrete.

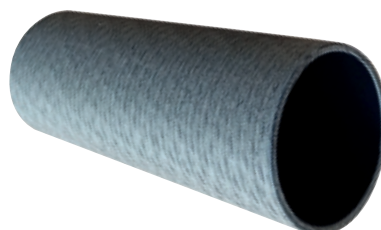


3. Integrate wall sleeve into the casting.

Please consider the following advice if adjustments at the fibre cement wall sleeve have to be done on site:

1. **Always wear a mask when cutting/working on the sleeve**
2. **Cut/work on fiber cement only when wet** and only with hand-operated or slow moving machines with dust trashrack

PVC Wall Sleeves 4 pipes



PVC wall sleeve

PVC wall sleeves

- Special roughening for optimum bond to the wall
- Suitable to wall in and cast to concrete
- Delivery in standard length of 400 mm (adjustment to wall thickness cut to length possible with a saw)
- Also available with sleeve and seal as well as with increased wall thickness
- PE casting cap as accessory for PVC wall sleeves with ID 60 mm up to 300 mm
- Welded adhesive flange for connecting thick coatings according to DIN 18533 available
- Material PVC-U

Sizes: DN 50 up to DN 300 in 400 mm length
(on request up to 2 m)

Technical data

For sizes and dimension please have a look at our price list or ask us at 4 pipes.

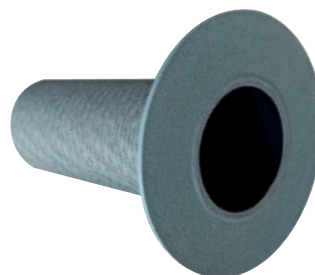


PE endcap:
for PVC-wall sleeve with a
ID of 80 mm up to 300 mm

Ø ID Wall sleeve in mm	Art.-No.
80	13020
100	13021
125	13022
150	13023
200	13024
250	13025
300	13026

ID in mm*	OD in mm	Length in mm**	Art.-No.
50	54	400	13000
60	64	400	13001
70	75	400	13002
70	75	2000	13058
80	85	400	13003
80	85	2000	13019
90	95	400	13004
100	106	400	13005
100	110	400	13006
100	110	3000	13018
125	131	400	13007
125	131	3000	13066
150	158	400	13008
150	158	3000	13060
200	210	400	13009
200	210	1500	13061
250	280	400	13010
250	280	1000	13062
300	315	400	13013
300	315	1000	13064

**other lengths on request



PVC wall sleeve with
bonding flange

ID in mm*	OD in mm	OD bonding flange in mm	Length in mm**	Art.-No.
80	85	185	400	13873
100	110	210	400	13876
125	131	231	400	13877
150	160	260	400	13878
200	210	310	400	13879
250	280	380	400	13880
300	315	415	400	13881

**other length on request



Wall sleeve with
formed bell and seal

ID in mm*	OD Bell in mm	Length in mm	Art.-No.
100	110	500	13011

*Tolerances ID ± 2 mm

PVC Wall Sleeves 4 pipes



Application instructions

General advice

- choose wall sleeve according to the exact diameter of the pipe and the corresponding Pressio® or Pressio®-Elements seal
- insert the seal after setting the sleeve in concrete

On-site adjustments

- Always wear a dust mask when cutting / processing the sleeves
- Cut PVC sleeves only manually or with slowly turning tools with dust collector
- Do not inhale the dust

Application in the shuttering

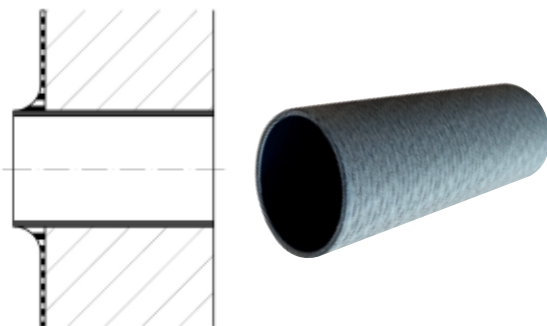
1. Fix wall sleeve in the casting with PE casting caps.
2. Application in base floors, ceilings or walls.
3. Compress concrete well around the wall sleeve.



Installation of the PVC wall sleeve in the waterproofing of buildings according to DIN 18533:

Preparation of the surface (PVC wall sleeve)

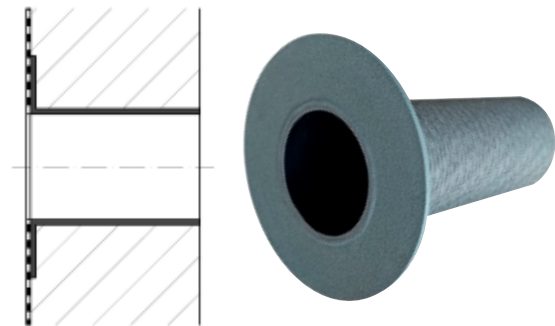
The surface of the PVC wall sleeve must be frost-free, free of release agents, free of mortar residues and free of loose contaminants. After the surface preparation the waterproofing layer is applied in accordance with the manufacturer's instructions.



Water impact class W1-E - low external water pressure

Installation of a wall sleeve without bonding flange:

The seal (e.g. polymer-modified bituminous thick layer coating PMBC) is attached to the wall sleeve like fillet. For this purpose, the wall sleeve must be installed with the adequate protruding length on the outside.



Water impact class W2.1-E - high external water pressure up to max. 3 m

Installation of a wall sleeve with bonding flange:

The protective film is removed before the sealing layer is applied. The seal is attached to the wall sleeve including reinforcement layer according to DIN 18533.

PVC Shaft Linings 4 pipes



Product information

PVC shaft linings with integrated seal are designed to connect pipes to structures when water pressure is low:

- PVC sewer pipes like KG etc.
- Cable casing pipes
- All plastic pipe acc. to DIN EN 1401-1 at shaft structures

PVC shaft linings are available for pipe OD:

- 110 mm Ø
- 125 mm Ø
- 160 mm Ø

For a perfect bond to the concrete, the PVC shaft lining 4 pipes have a special roughened outside surface.

Advantages

- Inexpensive wall penetration solution
- Pipe adjustment possible
- Quick application
- Can be cut to length easily if necessary to adjust to wall thickness
- For connecting, the carrier pipe can be pushed through completely



Sizes

Shaft linings PVC for pipe OD in mm	Length in mm	Art.-No.
110	110	13030
110	250	13032
110	300	13035
125	110	13038
125	250	13033
125	300	13036
160	110	13031
160	250	13034
160	300	13037

Other sizes on request

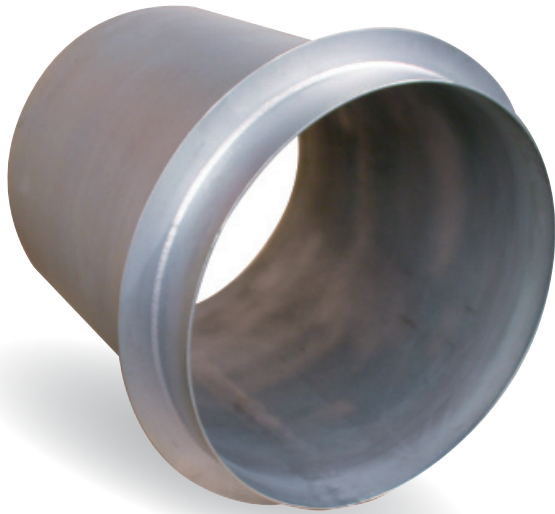
General comments

- The sizing of the shaft linings is acc. to the OD of the carrier pipe
- Insert carrier pipe after casting in the shaft lining
- Compress concrete well around the shaft linings

If on-site adjustments must be made, please note the following instructions:

- Wear a dust mask when the PVC has to be cut
- Cut PVC with slow-moving tools and soak off the dust during and after cutting

Steel Wall Sleeves 4 pipes



Steel wall sleeve

Steel wall sleeves form a perfect wall opening for the installation of an annular seal. Wall sleeves made of steel are manufactured individually and order-related.

- Wall sleeve of welded or seamless steel pipes
- Corrosion protection (black/galvanized/powder coated or of stainless steel) individually to customer specifications
- Delivery is made with standardized welded-on anchor flange (ring-shaped plate serves as wall anchor and as a waterstop at the OD of the sleeve). Alternative position of anchor flange accord. to customers specification possible

Technical data

For sizes and dimensions, please have a look at our price list or ask us at 4 pipes.



Example:
split on-wall
sleeve

Example:
Steel wall sleeve
with asymmetric
anchor-flange



General advice

- Choose wall sleeve according to the exact diameter of the pipe and the respective Pressio® or Pressio®-Elements.
- Insert the seal after casting the sleeve into the concrete

Application in the shuttering

1. Fix wall sleeve in the casting with PE endcaps
2. Application in base floors, ceilings or walls
3. Compress concrete well in area of the wall sleeve

Standard dimensions

DN	Dimension in mm (Ø x s x l)	ID Sleeve
50	60.3 x 2.9 x 300	54.5
65	76.1 x 3.6 x 300	68.9
80	88.9 x 4.0 x 300	80.9
100	114.3 x 4.0 x 300	106.3
125	139.7 x 5.0 x 300	129.7
150	168.3 x 5.0 x 300	158.3
200	219.1 x 5.0 x 300	209.1
250	273.0 x 5.0 x 300	263.0
300	323.9 x 6.0 x 300	311.9
350	355.6 x 6.0 x 300	343.6
400	406.4 x 6.0 x 300	394.4
500	508.0 x 6.0 x 300	496.0
600	610.0 x 8.0 x 300	598.0
700	711.0 x 8.0 x 300	695.0
800	813.0 x 8.0 x 300	797.0

Ask 4 pipes about your individual specifications.

Epoxy Coating Resin 4 pipes



Product information

Epoxy resin 4 pipes is a high quality coating for surfaces, especially stonework, concrete or steel. **Core drilled holes at wall penetrations are coated to avoid entry of water into the wall.**

Epoxy resin 4 pipes comes in a kit which is suitable for sites, including safety gloves and an application brush. The two components are supplied in the right mixing ratio to be easily mixed together on site.

After mixing in a pot, approx. 15 minutes remain for a secure hand-lining of the total package. The surface to be coated has to be clean, dry (with concrete residual moisture <4%) and fat-free.

If the coating is used as a high-quality corrosion protection system on steel, the surface might need preparation with a degree of purity of SA 2 1/2 (sand blasting). For a correct hardening the surrounding temperature should be above 5°C and the relative humidity below 60%.

The product is applied with a brush. Up to 3 layers can be applied on top of each other. Depending on the layer thickness and surface roughness, a container of 1.0 kg is sufficient for about 3 square metres ±. Curing time is 12 to 24 hours depending on temperature.

Epoxy resin 4 pipes is highly suitable and approved for applications with drinking water.

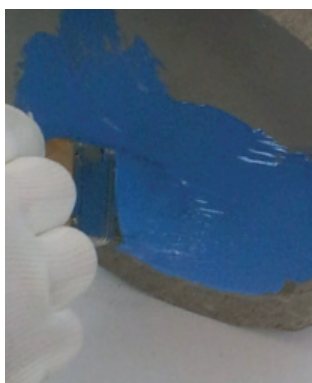
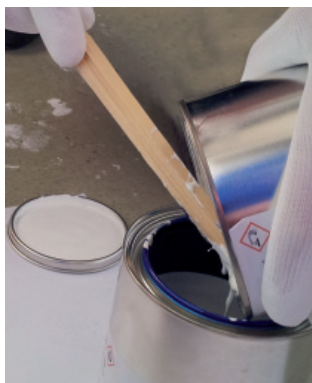
This material complies with the **UBA-BWGL and DVGW W270**. Before the first contact with drinking water the coating has to be flushed with hot water.

Electrical strength max. 9 KV / mm,
Do pore test with max. 5 kV.

For your safety when applying it is necessary that:

- There is enough **fresh air**
- You wear **safety clothing** plus
- Safety goggles and gloves
- Safety data sheet on request

Epoxy-Kit incl. brush and gloves
4 pipes Art.-No. 13099 - 1.0 kg unit



The 4 pipes warranty only applies to faulty material. Checking the suitability of the product for the individual application is solely the responsibility of the user.



1K Beto-coat 4 pipes



Art.-No. 13096
0.75 ml can

Product information

1K Beto-coat 4 pipes is a high quality coating for surfaces, especially concrete, stonework, steel and other materials. Core drilled holes at wall penetrations are coated to avoid entry of water into the wall.

1K Beto-coat 4 pipes comes in a kit which is **suitable for sites**, including safety gloves and an application brush. It consists of an alkyd-epoxy resin mixture and binds exceptionally strongly to the substrate. Good filling and covering capacity, rust-blocking, anti-corrosive, ventilating, productive.

As a one-component system, the can is **resealable after use** and the remaining container can be **used for the next application**.

Processing

1K Beto-coat 4 pipes can be applied with a brush, roller or by spraying. The surface must be clean, free of grease and dust. Use on a slightly damp surface is possible.

Before applying, stir the contents of the can well until the resin mixture appears homogeneous. After that, the coating is applied on the surface. At least two layers of 1K Beto-coat are required to achieve the full coating quality.

Technical data

Drying time	dust-dry after 30-45 minutes, able to paint over after 2-3 hours, nitro tight after 12 hours
Coverage	approx. 5 m ² per litre
Thinner	use universal thinner to spray and clean the equipment

Safety instructions

Use only in well-ventilated rooms. Do not inhale spray. Avoid contact with eyes. Keep out of the reach of children. Do not pour into drains. Flammable. Safety data sheet on request.

