

FILO form

connect ▶ seal ▶ protect ▶



Specialist in sealing technology

over **50 years** experience and expertise as developer and producer

As energy, communications and continuous innovation are all inextricably linked with our lives today, modern communication and utility networks will play a vital role in the creation of our future society.

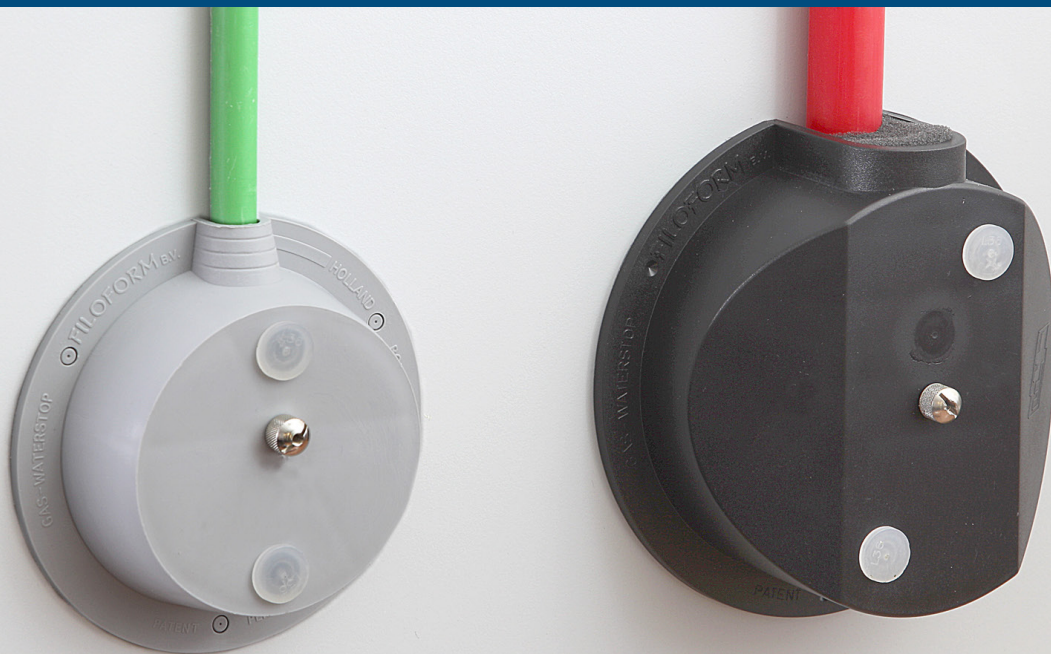
Filoform's mission is to assist you in planning for this opportunity now and to provide you with the best solutions, applications and products to protect your investment in the future.

For over 55 years, we have developed expertise in manufacturing and supplying quality products and solutions to connect, seal and protect the

underground cable networks of our international and domestic customers.

Filoform supplies a comprehensive range of quality solutions, applications and products to meet the general, specialist and bespoke requirements of cable, fibre optic and utility networks. Our sealing solutions are characterized by their simplicity, universal application and reliability.

We are at the forefront of R&D in our industry. This ensures that we meet our customers' evolving demands with effective, bespoke and smart solutions. And if it does not exist, we create it.



MDI - Duct sealing system

for sealing ducts containing pliable cables

available for duct openings Ø 16-60 mm

Duct sealing system type MDI has been developed to provide an effective and simple solution for situations where a cable is formed around a small radius.

The MDI seals internally & externally around the outside edge of the duct and can be positioned in any orientation.

The kit contains a plastic mould together with the right volume of resin that is needed.

The sealing cap can be applied to the wall by using the special fixing anchor. This way it is not necessary to drill additional holes and to secure the cap with screws.

Filoform duct seals type MD are based on a specially formulated two-component expanding polyurethane resin. When installing our duct sealing system MDI, you will protect valuables from damage which is caused by gas and water leaks.

Product Name	Duct diameter min.-max. (mm)	Maximum cable diameter in the duct (mm)	Order unit
MDI-1 Ø25 mm duct sealing kit	Ø 16-32	Ø 12,5 max.	per piece
MDI-2 Ø50 mm duct sealing kit	Ø 32-60	Ø 25 max.	per piece

FEATURES

- Gas and watertight up to 1,0 bar
- One complete kit for sealing one duct
- Two fill openings
- Special fixing anchor
- High mechanical strength, resists ground movement, shocks and vibrations
- Easy and quick installation
- 2-component resin bag
- Short curing time

For more product information visit our [website](#).



MDII - Duct sealing system

for sealing standard duct openings

available for duct openings up to Ø 250 mm

Duct sealing system type MDII has been developed to provide an effective and simple solution for all your Gas and Watertight duct sealing requirements.

The MDII seals internally & externally around the outside edge of the duct and even closes a possible gap between a PVC duct that has been casted directly into the concrete wall.

The kit contains a conical shaped mould together with the right volume of resin that is needed.

Filoform duct seals type MD are based on a specially formulated two-component expanding polyurethane resin. After pouring the resin in the duct, the resin starts expanding by forming CO². During the expansion the polyurethane filling material penetrates all areas inside the duct, thus sealing all openings regardless of the shape of the duct or drilled hole.

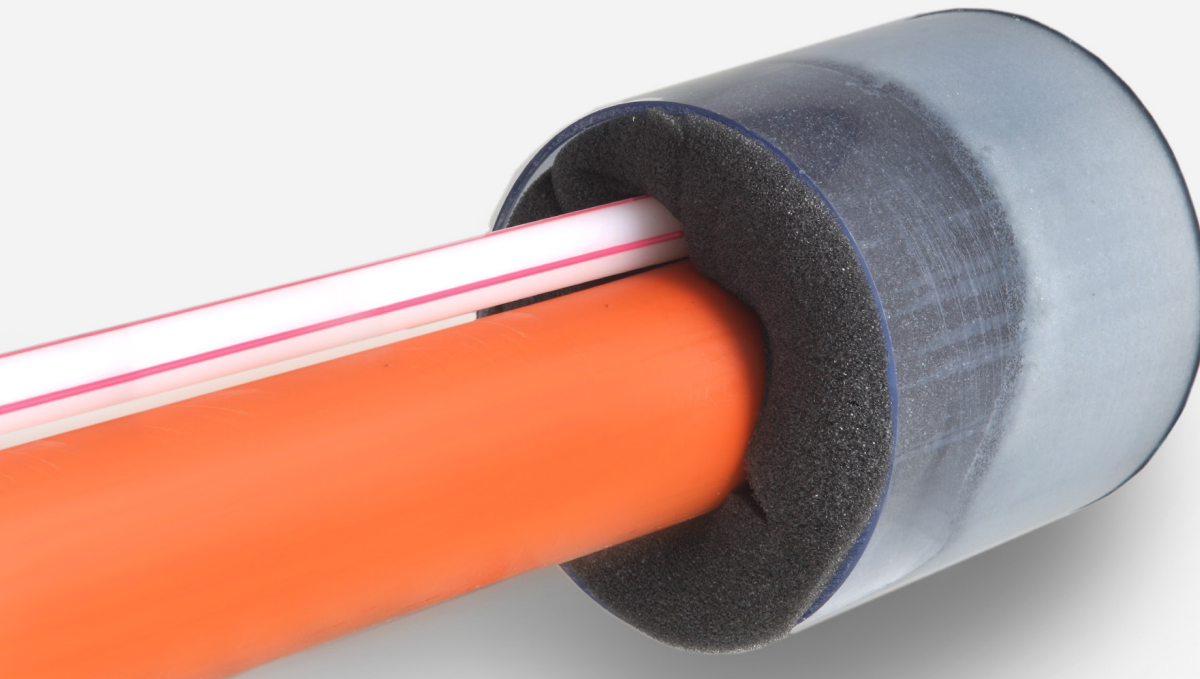
The MDII system is suitable in situations where more than one cable or pipe is in the duct.

Product Name	Duct diameter min.-max. (mm)	Maximum cable diameter in the duct (mm)	Order unit
MDII-50 duct sealing kit	Ø 50 max.	Ø 40 max.	per piece
MDII-110 duct sealing kit	Ø 110 max.	Ø 70 max.	per piece
MDII-125 duct sealing kit	Ø 125 max.	Ø 90 max.	per piece
MDII-160 duct sealing kit	Ø 160 max.	Ø 130 max.	per piece
MDII-200 duct sealing kit	Ø 200 max.	Ø 160 max.	per piece
MDII-250 duct sealing kit	Ø 250 max.	Ø 200 max.	per piece

FEATURES

- Gas and watertight up to 1,0 bar
- Divisible conical shaped mould
- Special elastic cord to secure the cone
- Also suitable for renovation works
- Closed watertight cell structure
- Over 35 years of operational experience
- High mechanical strength
- Can be used in any shaped or sized duct up to 200mm

Watch the product installation video's on our website or youtube channel.



MDIII - Duct sealing system

for sealing of extending ducts

available for duct openings up to Ø 250 mm

Duct sealing system MDIII have been developed to provide an effective and simple solution for Gas and Watertight sealing of cables / pipes in ducts or drilled holes.

MDIII is used as an internal pipe/duct seal and also when duct openings are close together and it's not possible to use duct sealing system type MDII.

The product contains 2 foam flanges which can be placed inside a duct to create a chamber where

the resin can be poured in. After pouring the resin in the duct, the resin starts expanding by forming CO². During the expansion the polyurethane filling material penetrates all areas inside the duct, thus sealing all openings regardless of the shape of the duct or drilled hole.

The polyurethane sealant will cure and harden into high density foam with a closed cell structure. Duct sealing system MDIII is extremely flexible and can be installed in ducts vertically and horizontally.

Product Name	Duct diameter min.-max. (mm)	Maximum cable diameter in the duct (mm)	Order unit
MDIII-25 duct sealing kit	Ø 25 max.	Ø 8 max.	per piece
MDIII-50 duct sealing kit	Ø 50 max.	Ø 20 max.	per piece
MDIII-75 duct sealing kit	Ø 75 max.	Ø 40 max.	per piece
MDIII-110 duct sealing kit	Ø 110 max.	Ø 80 max.	per piece
MDIII-160 duct sealing kit	Ø 160 max.	Ø 130 max.	per piece
MDIII-200 duct sealing kit	Ø 200 max.	Ø 160 max.	per piece
MDIII-250 duct sealing kit	Ø 250 max.	Ø 220 max.	per piece

FEATURES

- Gas and watertight up to 1,0 bar
- Easy and quick installation
- Over 35 years of operational experience
- Can be used in any shaped or sized duct up to 250mm
- Seals all known materials: PVC & PE sheeted cables, PILC cables, (HD)PE pipes, PE water conduits
- One complete kit for sealing one duct
- Contains the exact volume of resin needed

For enquiries contact our sales department.



MDIV - Duct sealing system

for sealing of empty ducts

available for duct opening Ø 75-160 mm

Duct sealing system type MDIV is suitable for quick and easy sealing of empty ducts / drilled holes where cables or pipes are to be installed at a later date. The system provides an effective Gas and Watertight seal.

The product contains a special designed insert for applying into a duct opening. Before inserting it in to the duct opening the product is filled with the specially formulated two-component expanding polyurethane resin.

After applying the filled product in the duct, the resin starts expanding by forming CO². During the expansion the polyurethane filling material penetrates all areas inside the duct, thus sealing all openings regardless of the shape of the duct or drilled hole.

This duct sealing system is extremely flexible and can be installed in ducts vertically and horizontally.

Product Name	Duct diameter min.-max. (mm)	Maximum cable diameter in the duct (mm)	Order unit
MDIV-1 Ø 75- 95	Ø 75-95	d.n.a.	per piece
MDIV-3 Ø 95- 125	Ø 95-125	d.n.a.	per piece
MDIV-4 Ø 125- 160	Ø 125-160	d.n.a.	per piece

FEATURES

- Gas and watertight up to 1,0 bar
- Can be used in any shaped or sized duct
- One complete kit for sealing of one duct
- Re-enterable
- Visual check trough transparent plastic
- No architectural measures necessary
- Quick & easy installation

Keep updated with our new developments, sign up for the Filoform newsletter.

FILOseal+

FEATURES

- Gas & Water Tight - Up to 1 Bar
- Resistant to: Hydrocarbons (Petrol, Diesel, Ethenol, LPG, Adblue)
- Resistant to: Methane, H2S, Chlorine, and many other gases (Nedlab)
- Resistant to Rats & Termites (Mastotermes Darwiniensis) Northern Australian termites.
- Excellent Adhesion
- Flexible one component adhesive & sealing compound (MD+)
- Non-Corrosive
- Non Hazardous
- Complies with ATEX regulations
- Seals all common materials
- Suitable for retrofit
- Re-enterable
- Wimes Compliant, (3.02 Clause, 7.4.3.2 d)



FILOseal+HD

All the benefits of the FILOseal+ with the addition of the following features:

FEATURES

- Gas & Water Tight - Up to 2 Bar
- Seals Large LV, MV, & HV cables
- 100kg Pulling force on the cables
- 10xd at 45°, with 1 bar pressure



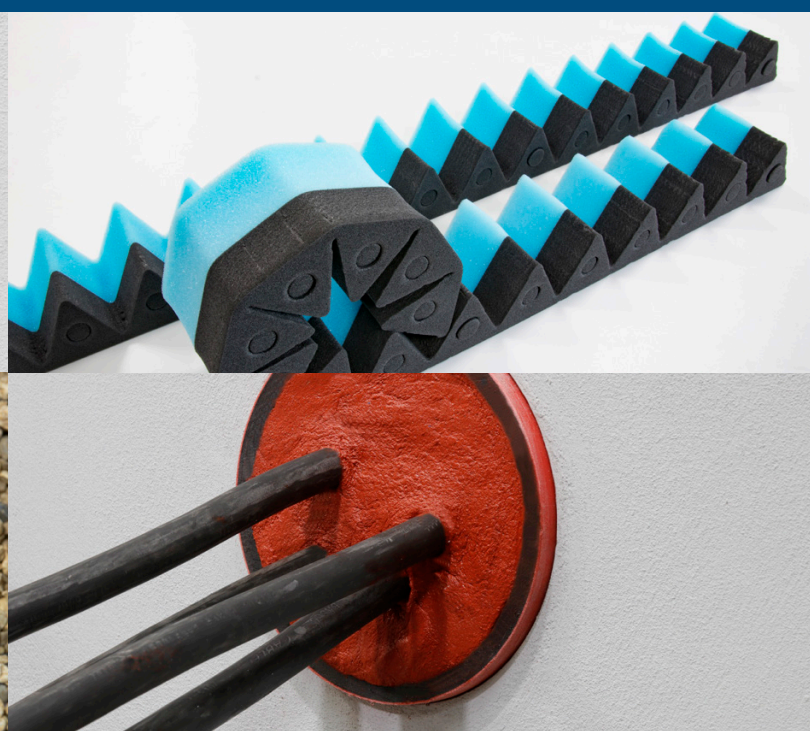
FILOseal+HD FIRE

All the benefits of the FILOseal+HD with the addition of the following features:

FEATURES

- Fire Resistant up to 4 hours (BS EN1366-3 2009)
- Wimes Compliant (3.02 Clause, 7.4.3.2 b)





FILoSeal+

universal re-enterable duct sealing system duct opening up to Ø 200 mm

Larger sizes available upon request

Duct sealing system FiloSeal+ is a universal solution for sealing cables and pipes in ducts, drilled holes or transit frames.

The tri-flexible foam makes positioning and separation of the cables very simple while also providing a backing for the MD+ to be applied on to. FiloSeal+ is suitable for sealing any cable configuration or pipes contained in one duct and also allows easy re-entry of the seal to add or remove cables or pipes as required. The Filoform duct sealing system FiloSeal+ uses our MD+ sealant which is easily applied from a skeleton gun. The high quality, one component, flexible sealant "MD+" is based on a silicone compound that cures with air (Humidity).

After application and full curing the thixotropic MD+ forms a plastic elastomer mass with special qualities effectively sealing and bonding, while providing a high level of durability.

FEATURES

- Flexible, one component, adhesive and sealing compound in a cartridge (310ml)
- High levels of Gas and Water tightness
- Excellent adhesion
- Resistant against Water, Alkaline, Chemical agents
- Resistant to Hydrocarbons
- Suitable for sealing underground cable ducts set out within the APEA 'Blue Book'
- Resistant to Hydrogen Sulphide / Methane and many other Gases (NedLab)
- Resistant to rats
- Resistant to termites (Mastotermes Darwiniensis) Northern Australian termites
- Non corrosive
- Solvent free
- Shock absorbing
- Non toxic, neutral and almost odourless
- Complies with ATEX regulations
- WIMES Compliant, (3.02 clause 7.4.3.2, d & e)
- Suitable for any shaped duct / bore hole / opening
- Seals all known materials, PVC & PE sheathed cables, PILC, (HD) PE pipes
- Suitable for renovations, can be installed retrospectively
- Up to 1 bar pressure resistance
- Quick & easy to install, especially in vertical ducts
- Non Hazardous
- Over 25 years of operational experience

Product Name	Duct diameter min.-max. (mm)	Maximum cable diameter in the duct (mm)	Order unit
FiloSeal+125 mm	Ø 125 max.	Ø 95 max.	per piece
FiloSeal+ 200 mm	Ø 200 max.	Ø 160 max.	per piece

For enquiries contact our sales department.



FILoSeal+HD

universal re-enterable duct sealing system

duct opening up to Ø 250 mm

Larger sizes available upon request

- Up to 2 bar Pressure Resistance
- 100Kg pulling Force on the cables when sealed
- 10xd at 45°, with 1 bar pressure bending test

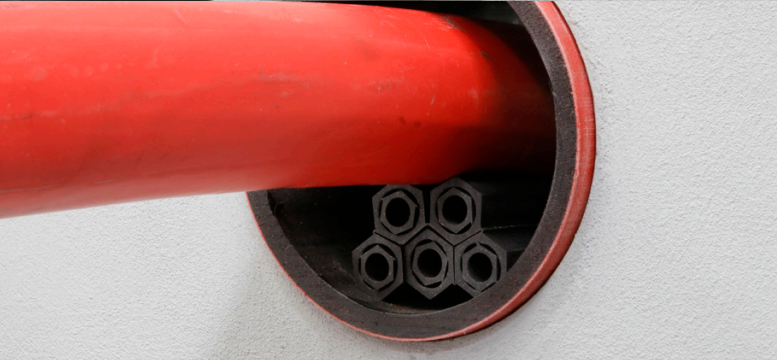
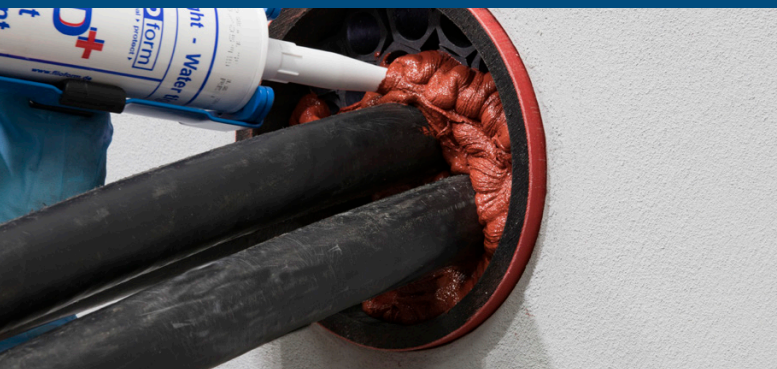
FiloSeal+HD provides a strong support system using the hexagonal tubes which builds up like a honeycomb structure. FiloSeal+HD is suitable for sealing any cable configuration or pipes contained in one duct and also allows easy re-entry of the seal to add or remove cables or pipes as required. The Filoform duct sealing system FiloSeal+HD uses our MD+ sealant which is easily applied from a skeleton gun. The high quality, one component, flexible sealant "MD+" is based on a silicon compound that cures with air (Humidity). The unique design of the hexagonal tubes makes positioning and separation of the cables very simple while also providing a strong backing for the MD+ to be applied on.

FEATURES

- High levels of Gas and Water tightness
- Excellent adhesion, applicable to all common building materials
- Shows Fire resistance properties
- Resistant against Water, Alkaline, Chemical agents
- Resistant to Hydrogen Sulphide / Methane and many other Gases (NedLab)
- Non corrosive
- Solvent free
- Shock absorbing
- Non toxic, neutral and almost odourless
- Complies with ATEX regulations
- Suitable for any shaped duct / bore hole / opening
- Quick and easy installation
- Seals all known materials, PVC & PE sheathed cables, PILC, (HD) PE pipes
- Suitable for renovations, can be installed retrospectively
- Resistant to Rats
- Resistant to termites (Mastotermes Darwiniensis) Northern Australian termites
- Resistant to hydrocarbons

Product Name	Duct diameter min.-max. (mm)	Order unit
FiloSeal+HD - 75 mm > 110 mm	Ø 110 max.	per piece
FiloSeal+HD - 125 mm > 160 mm	Ø 160 max.	per piece
FiloSeal+HD - 180 mm	Ø 180 max.	per piece
FiloSeal+HD - 200 mm	Ø 200 max.	per piece
FiloSeal+HD - 225 mm	Ø 225 max.	per piece
FiloSeal+HD - 250 mm	Ø 250 max.	per piece

Watch the FiloSeal+HD productvideo online on our website.



FILoSeal+HD FIRE

FiloSeal+HD **FIRE** provides a strong support system using our specially formulated material called Formite which builds up like a honeycomb structure. FiloSeal+HD **FIRE** is suitable for sealing any cable configuration or pipes contained in one duct and also allows easy re-entry of the seal to add or remove cables or pipes as required.

The Filoform duct sealing system FiloSeal+HD **FIRE** uses our MD+ sealant which is easily applied from a skeleton gun. The high quality, one component, flexible sealant "MD+" is based on a silicon compound that cures with air (Humidity).

The unique design of the hexagonal tubes makes positioning and separation of the cables very simple while also providing a strong backing for the MD+ to be applied on.

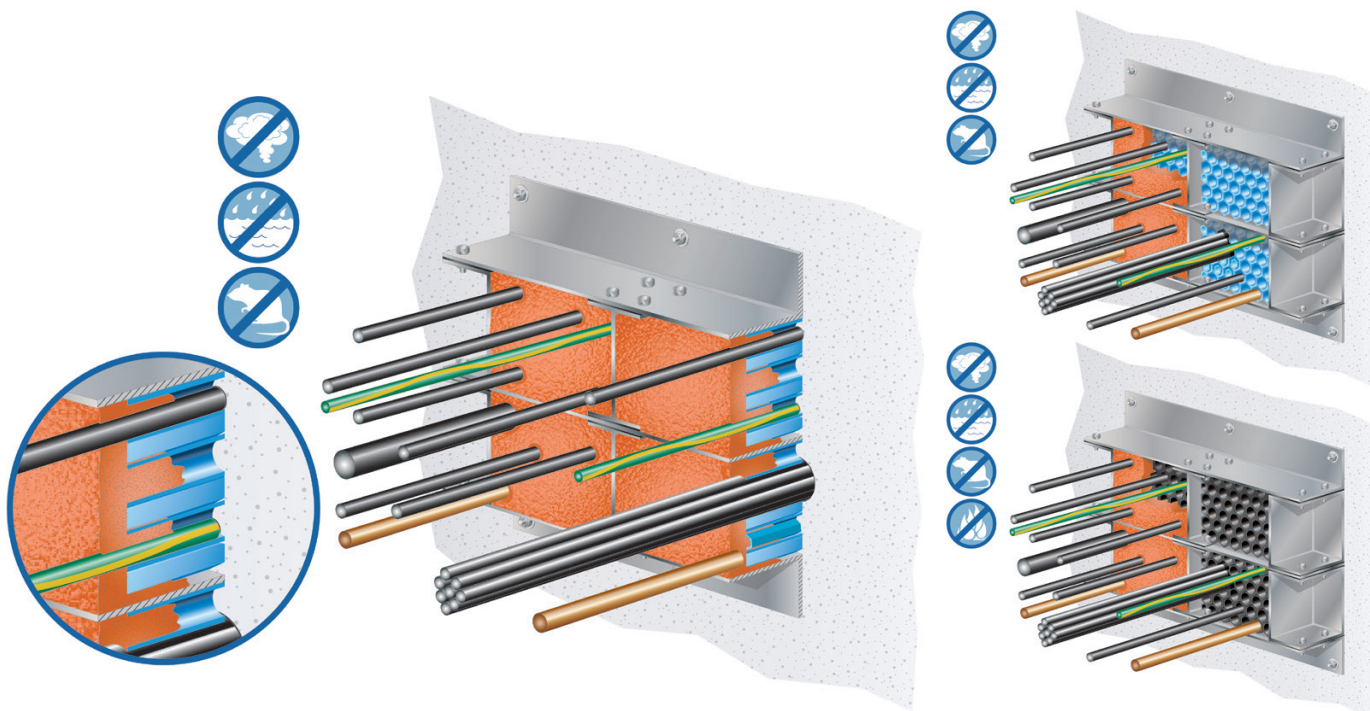
- Up to 4 hours fire resistance in transit frames (single side)
- Up to 4 hours fire resistance in ducts
- Tested to BS EN1366-3 2009
- Up to 2 bar Pressure Resistance
- 100Kg pulling Force on the cables when sealed
- 10xd at 45°, with 1 bar pressure bending test

FEATURES

- High levels of Gas and Water tightness
- Excellent adhesion, applicable to all common building materials
- Shows fire resistance properties
- Resistant against Water, Alkaline, Chemical agents
- Resistant to Hydrogen Sulphide / Methane and many other Gases (NedLab)
- Non corrosive
- Solvent free
- Shock absorbing
- Non toxic, neutral and almost odourless
- Complies with ATEX regulations
- Suitable for any shaped duct / bore hole / opening
- Quick and easy installation
- A complete kit
- Seals all known materials, PVC & PE sheathed cables, PILC, (HD) PE pipes
- Suitable for renovations, can be installed retrospectively
- Resistant to Rats
- Resistant to termites (Mastotermes Darwiniensis) Northern Australian termites

Product Name	Duct diameter min.-max. (mm)	Order unit
FiloSeal+HD FIRE - 75 mm > 110 mm	Ø 110 max.	per piece
FiloSeal+HD FIRE - 125 mm > 160 mm	Ø 160 max.	per piece
FiloSeal+HD FIRE - 180 mm	Ø 180 max.	per piece
FiloSeal+HD FIRE - 200 mm	Ø 200 max.	per piece
FiloSeal+HD FIRE - 225 mm	Ø 225 max.	per piece
FiloSeal+HD FIRE - 250 mm	Ø 250 max.	per piece

Watch the FiloSeal+HD productvideo online on our website.



A frame

120 x 120 mm

The frames are modular in construction based around a working opening size of 120 x 120 and can be assembled in almost any size required. The frames are made of 6mm steel which is zinc plated to give a longer life.

Use of Filoseal+HD FIRE in these frames has been tested to EN1366-3:2009 for a period of up to 4 hours on a standard installation. Frames are a worthy addition to the Filoseal+HD and HD FIRE ranges as they are a problem solver in the following situations:

1. Irregular openings in a wall – frame neatens the install
2. Walls of a poorer quality – frame stops reliance of seal bonding to structure
3. Ducts with too many cables – frame allows splaying of cables to obtain a proper seal.
4. Large cable runs such as a riser can be neatly sealed.

With this design of seal system, accompanied by these frames, the need for upfront design is minimized. With the offer of this style frame, we have performed all the tests we can on it to give you confidence in the system as a whole.

There is no need to get into complicated modular insert sizes as this system is filled with our widely approved Filoseal+HD and Filoseal+HD FIRE systems which need little to no upfront design in order to be incorporated into your project.

In order for us to quote you, please advise the wall opening size and layout of cables. We can work out your needs based upon this and provide a CAD based drawing of our solution.

The frames can be assembled around existing cable runs which minimizes (or should that be eliminates) down time of whatever your cables are connected to.

FEATURES

- Minimal frame dimensions outside the wall aperture means fitting is easy.
- Modular frame to fit around existing cables or around over large connectors.
- Zinc plated for a longer life.
- Spare apertures can be used in the future.
- Fixing holes to be drilled by the user to suit their individual application.
- Design advice given by Filoform.

Designed to partner with the Filoseal+HD and Filoseal+HD FIRE, Filoform have created frames to

hold a seal where the space or structure will not allow fitting of a seal into the structure itself. All the features of Filoseal+HD and Filoseal+HD Fire can be applied, but the highlights are:

- Up to 4 hours fire resistance in transit frames (single side)
- Tested to BS EN1366-3 2009
- Up to 2 bar Pressure Resistance
- 100Kg pulling Force on the cables when sealed
- 10xd at 45°, with 1 bar pressure bending test

A frame

120 x 120 mm

Cable Transit Frame Key

The modularity of the frame is based around two opening sizes; they are 120 x 120mm (type A) or 120 x 240mm (type B) which somewhat follows the frame sizing of regular transit systems. Obviously, for a larger hole, we build a multi-opening frame to suit the application.

Built frames - (A Frame & B Frame)

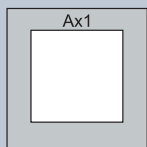
Built frame size notation.

Frames of **Type A** (120 x 120 opening). For clarity, all frames are 120 wide, it is the height that changes.

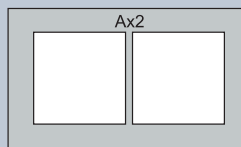
Frames types followed by an 'xn' notation means there are n number of openings set out horizontally in a row.

Frames types followed by a '+type A or B' notation mean the frames are stacked vertically on top of each other.

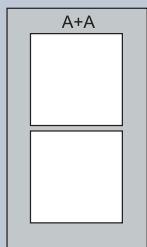
So a frame denoted A+A+A x8 means there are 24 openings in total of size A, in columns of 3 high 8 times over.



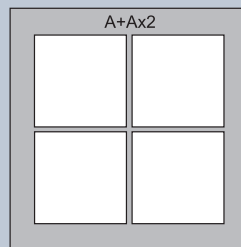
A x 1 (1 opening, 120x120mm)



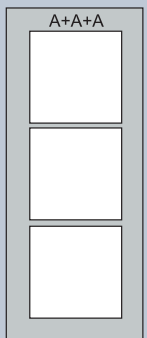
A x 2 (2 openings, side by side 120x120mm)



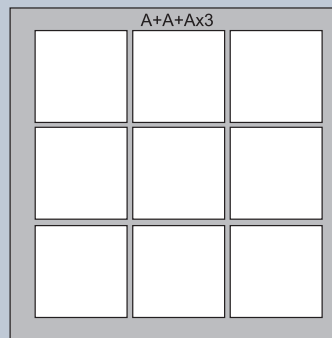
A+A (2 openings on top of each other 120x120)



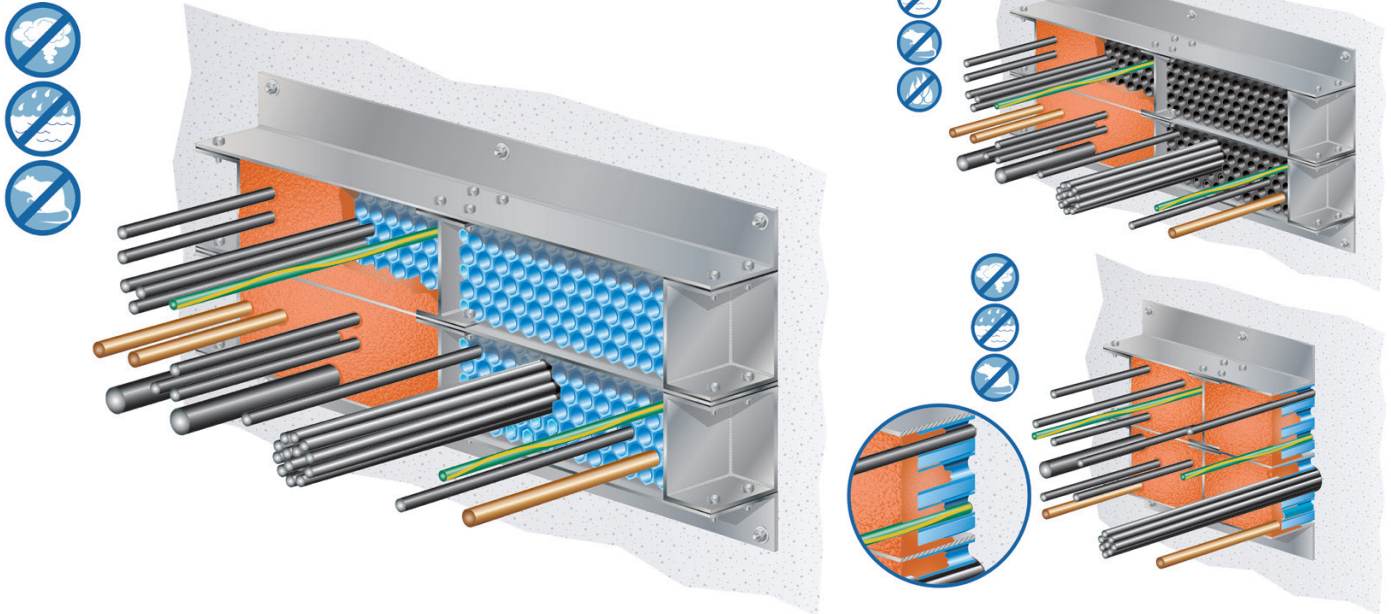
A+A x 2 (4 openings, 2 in a row x 2 high 120x120mm)



A+A+A (3 openings on top of each other 120x120)



A+A+A x 3 (9 openings, 3 in a row x 3 high 120x120mm)



B frame

120 x 240 mm

The frames are modular in construction based around a working opening size of 240 x 120 and can be assembled in almost any size required. The frames are made of 6mm steel which is zinc plated to give a longer life.

Use of Filoseal+HD FIRE in these frames has been tested to EN1366-3:2009 for a period of up to 4 hours on a standard installation.

Frames are a worthy addition to the Filoseal+HD and HD FIRE ranges as they are a problem solver in the following situations:

1. Irregular openings in a wall – frame neatens the install
2. Walls of a poorer quality – frame stops reliance of seal bonding to structure
3. Ducts with too many cables – frame allows splaying of cables to obtain a proper seal.
4. Large cable runs such as a riser can be neatly sealed.

With this design of seal system, accompanied by these frames, the need for upfront design is minimized. With the offer of this style frame, we have performed all the tests we can on it to give you confidence in the system as a whole.

There is no need to get into complicated modular insert sizes as this system is filled with our widely approved Filoseal+HD and Filoseal+HD FIRE systems which need little to no upfront design in order to be incorporated into your project.

In order for us to quote you, please advise the wall opening size and layout of cables. We can work out your needs based upon this and provide a CAD based drawing of our solution.

The frames can be assembled around existing cable runs which minimizes (or should that be eliminates) down time of whatever your cables are connected to.

FEATURES

- Minimal frame dimensions outside the wall aperture means fitting is easy.
- Modular frame to fit around existing cables or around over large connectors.
- Zinc plated for a longer life.
- Spare apertures can be used in the future.
- Fixing holes to be drilled by the user to suit their individual application.
- Design advice given by Filoform.

Designed in partnership with the Filoseal+HD and Filoseal+HD FIRE, Filoform have created frames to

hold a seal where the space or structure will not allow fitting of a seal into the structure itself. All the features of Filoseal+HD and Filoseal+HD Fire can be applied, but the highlights are:

- Up to 4 hours fire resistance in transit frames (single side)
- Tested to BS EN1366-3 2009
- Up to 2 bar Pressure Resistance
- 100Kg pulling Force on the cables when sealed
- 10xd at 45°, with 1 bar pressure bending test

B frame

120 x 240 mm

Cable Transit Frame Key

The modularity of the frame is based around two opening sizes; they are 120 x 120mm (type A) or 120 x 240mm (type B) which somewhat follows the frame sizing of regular transit systems. Obviously, for a larger hole, we build a multi-opening frame to suit the application.

Built frames - (A Frame & B Frame)

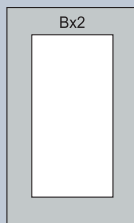
Built frame size notation.

Frames of **Type B** (120 x 240 opening. For clarity, all frames are 120 wide, it is the height that changes.

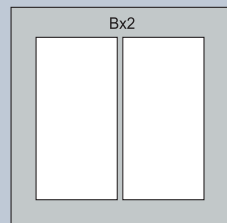
Frames types followed by an 'xn' notation means there are n number of openings set out horizontally in a row.

Frames types followed by a '+type A or B' notation mean the frames are stacked vertically on top of each other.

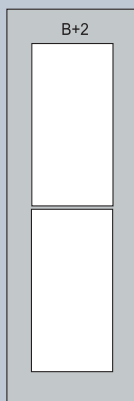
So a frame denoted B+B+B x8 means there are 24 openings in total of size B, in columns of 3 high 8 times over.



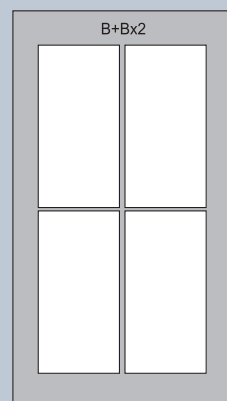
B x 1 (1 opening, 120x240mm)



B x 2 (2 openings, side by side 120x240mm)



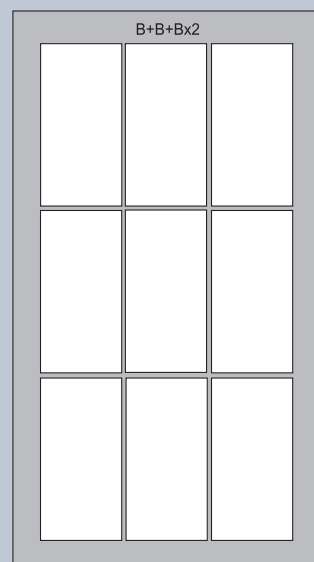
B+B (2 openings on top of each other 120x240)



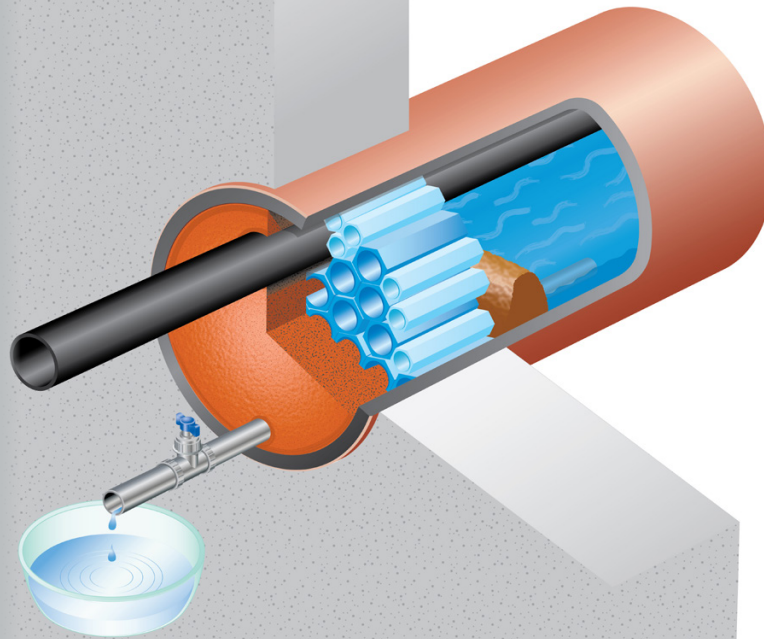
B+B x 2 (4 openings, 2 in a row x 2 high 120x240mm)



B+B+B (3 openings on top of each other 120x240)



B+B+B x 3 (9 openings, 3 in a row x 3 high 120x240mm)



Running Water Blocking Kit

Can be used with FiloSeal+, FiloSeal+HD

One of the reasons why ducts are sealed is to prevent running water getting into a building or enclosure.

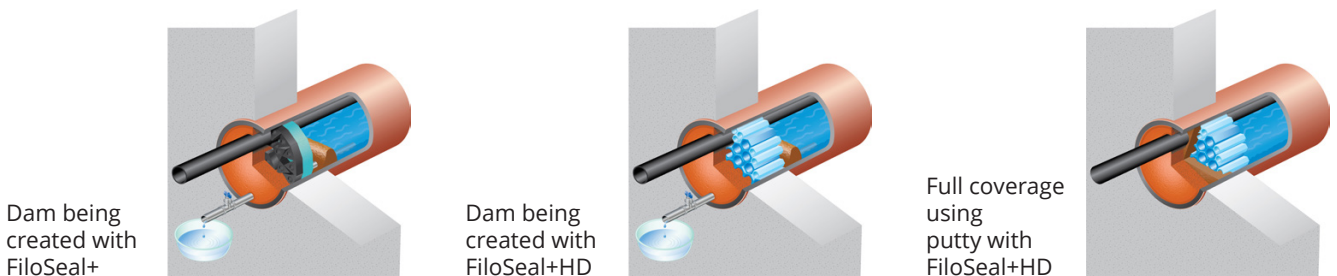
Often when faced with sealing a duct, this running water is still evident.

Our Filoseal Running Water Block system provides the user with a method of preventing the water from ruining any permanent sealing system whilst that system is installed.

The kit provides a method of damming or blocking the water flow, **controlling it and stopping it.**

FEATURES

- Mouldable putty
- Sticks to a wet surface
- Non hazardous
- Stops Water
- No shelf life
- Major problem solver
- Allows pressure release before adding a new cable or pipe in the future.



Dam being created with FiloSeal+

Dam being created with FiloSeal+HD

Full coverage using putty with FiloSeal+HD

Product Name	Description	Used with	Duct Size	Order Unit
FiloSeal - Water blocking kit - small	Water blocking kit with pipe & tap	FiloSeal+ 125mm	Up to 125mm	Per kit
FiloSeal+ Water blocking kit - large	Water blocking kit with pipe & tap	FiloSeal+ 200mm	125mm to 200mm	Per kit
FiloSeal+HD - Water Blocking kit - small	Water blocking kit with pipe & tap - Dam and full coverage can be achieved	FiloSeal+HD - 110mm	Up to 110mm	Per kit
FiloSeal+HD - Water Blocking kit - Large	Water blocking kit with pipe & tap - Dam and full coverage can be achieved	FiloSeal+HD - 160mm	125mm to 160mm	Per kit



FILO form
group

Head office Filoform BV

De Panoven 17
4191 GW Geldermalsen-NL
Netherlands

T +31 (0) 345 58 82 20
F +31 (0) 345 52 82 21
E info@filoform.com
W www.filoform.nl

Filoform UK Ltd

Unit K, Lambs Farm Business Park
Basingstoke Road, Swallowfield
Reading RG7 1PQ

T +44 (0) 1189 886873
F +44 (0) 1189 886576
E info@filoform.co.uk
W www.filoform.co.uk

Filoform DE

GT Elektrotechnische Produkte GmbH
Kupferschmidstraße 86
79761 Waldshut-Tiengen

T +49 (0) 77 41 / 92 25-0
F +49 (0) 77 41 / 92 25-29
E verkauf@filoform.com
W www.filoform.de