



Fire Protect

**PASSIVE FIRE RESISTANT SOLUTIONS FOR LINEAR JOINTS
AND SERVICE PENETRATIONS**





BOSTIK, SMART ADHESIVES

The logo and the house style with the characteristic green gecko is more than just a visual appearance. “Smart Adhesives” is a re-flection of our positioning with regard to the development of smart and innovative sealing and bonding solutions that are safe, flexible and efficient.

We develop innovative sealing and bonding solutions that, whatever is constructed, connected or built, are smarter and can adjust better to the forces and challenges in our daily life.

THE GECKO - INSPIRING ADHESION

For centuries, scientists have been inspired by geckos because of their unique bonding mechanism. They can stick to almost any surface, can climb super-fast against smooth polished glass and can easily carry their entire body weight with just one toe.

The Bostik gecko is flexible, easy to adapt to environments, is open to new situations and is courageous. It symbolizes Bostik’s smart and innovative sealing and bonding solutions for the challenges which to-day’s market faces.

1. Introduction

Bostik Fire Protect is a complete, fully certified, approved range of passive fire resistant products for use in movement joints, connection joints, openings and service penetrations between fire compartments.

Passive fire resistant products are the primary means, used in the construction of a building, of limiting the spread of flames, heat and smoke and hugely increasing fire safety. By correct application of these products the basic, legal compartmentalisation requirements will be met. These products contribute to the structural stability of a building and provide time for people to get out of a building safely or for the building to be evacuated. Passive fire resistance limits the spread of flames and smoke and thus the transfer and flashover of fire between compartments.

Passive fire protection:

- Saves lives
- Limits material damage loss
- Minimises business loss
- Protects the building, which means it is accessible after the fire

Creating fire compartments in a building is an essential part of passive fire safety. The underlying aim is to restrict the spread of smoke and flames in the case of a fire to one single compartment and thus to slow down the spread of the fire. This gives people the chance to leave the building safely and gives emergency services time to act and fight the fire.

As passive fire safety is becoming increasingly important, both in new buildings and in renovation work, Bostik has decided to focus its efforts on product development and certification for this market segment. With our huge experience in the field of solutions for linear joints (EN 1366-4) we are proud to present our Fire Protect range which also includes solutions for openings and service penetrations (EN 1366-3).

Reaction to fire and fire resistance

Reaction to fire is a completely different matter than fire resistance. Both are strictly regulated in national and international standards.

Reaction to fire indicates how flammable/combustible a material is and how much it contributes to the development of a fire. Well-known standards for reaction to fire are the German standard DIN4102 part 1, with classifications A1, A2, B1, B2 and B3 and the European EN 13501-1,

with classifications A1, A2, B, C, D, E and F to determine combustibility and additional classification s1, s2, s3 for smoke development and d0, d1 and d2 for burning droplets and particles.

Fire resistance on the other hand is the time, expressed minutes, in which a burning compartment is able to successfully fulfil its role and thus prevent the fire from spreading. This fire resistance of (combined) products has been tested and measured in standardised, common applications. This means that a product with the highest classification for reaction to fire does not offer any guarantee of fire resistance.

This brochure sets out all the essential information about common applications as well as listing the solutions that we provide for you to be able to meet fire resistance requirements.

Bostik is well-known as one of the leading developers and manufacturers of sealants, adhesives and PU foam and is regarded as an authority in the field of dedicated concepts that provide complete solutions.

With the name Bostik Fire Protect, Bostik has developed a complete range of passive fire resistant solutions. The main goal of this range is to offer efficient solutions with the newest technologies. All products and applications are fully tested and certified according to the latest European standards.

About Bostik

Bostik has grown since the company was founded to a leading global player in the field of adhesive and sealing solutions. Through great involvement with customers and the translation of craftsmanship towards practical applications, we want to continue grow into your respected producer and partner in connection technologies.

- 130 years of experience in the development of smart adhesives
- Annual turnover around 2 billion euros
- More than 6,000 employees worldwide
- Active in more than 55 countries
- More than 500 employees for development & technology
- Part of Arkema



Content

1.	Introduction	page 3
2.	Linear joints (EN 1366-4)	page 5
3.	Product portfolio linear joints	page 7
4.	Selection table linear joints	page 13
5.	Service penetrations (EN 1366-3)	page 25
6.	Product portfolio service penetrations	page 27
7.	Product selector service penetrations	page 37
8.	Application areas	page 40
9.	Guns and accessories	page 42
10.	Certification	page 46
11.	Explanation of the icons	page 48
12.	Technical training	page 50



2. Linear joints (EN 1366-4)

A fire compartment consists of fire resistant walls and floors. A compartment is completed by a sound fire resistant seal of joints between these walls and floors. The joints between the structure and the (fire) doors and (window) frames have to be fire resistant too. Products and systems tested in accordance with EN 1366-4 are used to fully seal fire compartments where walls, frames and floors meet. Most of these products and systems were designed to be able to absorb movements in the construction components.

Our solutions for linear joints consist of:

- Bostik FP 401 Fireseal Acrylic
- Bostik FP 402 Fireseal Silicone
- Bostik FP 403 Fireseal Hybrid
- Bostik FP 404 Fire Retardant PU (Gun)Foam

The fire resistance of our solutions for sealing these linear joints has been tested in accordance with European Norm 1366-4 by a certified laboratory (notified body) on different surfaces and multiple joint widths. The results of these tests are summarised in classification reports. These specially developed products can be used separately, but combinations of products have also been tested. This enables Bostik to provide an efficient solution for every situation.

Peutz Laboratory for Fire Safety - independent type testing

The Bostik products used for fire resistant linear joint seals are extensively tested in the Peutz Laboratory for Fire Safety by means of the standard EN 1366-4. The laboratory is accredited to EN-ISO/IEC 17025 (L505) by the Dutch Accreditation Council (RvA) and recognized as a Notified Body by the Dutch Government (NB2264).

The fire resistance is a means to measure how long a test specimen can withstand a fire, in this case linear joint seals made of Bostik products. During a fire test of linear joint seals, multiple seals with a minimum length of 900 mm are installed in a supporting construction the size of the furnace, 4 m wide and 3 m high. Inside the furnace the temperature is controlled by gas burners according to the standard heating curve, which leads to a temperature of more than 800 °C after 30 minutes and almost 1000 °C after one hour. During the test the linear joint seals are monitored visually and electronically in order to determine failure of performance criteria such as temperature and integrity.

The accreditation and notification of the laboratory guarantees to manufacturers, suppliers and users that the products are tested independently, are not arbitrary and can be used in all member states of the European Union. Last but not least, Peutz laboratories also tested these Bostik products regarding reaction to fire, smoke control and acoustics.





Bostik smart adhesives

FP 404

FIRE RETARDANT PU GUNFOAM

FIRE PROTECT

FIRE-RETARDANT PU FOAM
FEUERHEHMENDE PU FOAM
BRANDWERENDE PU FOAM

- Certified for wooden frames, Certified for Holzrahmenverbindungen, Geacertificeerd voor houten kozijn aansluitingen
- Complies with fire class B1 Comformaeu voldoet aan brandveiligheidsklasse B1
- Easy to apply, Facile à appliquer, Einfache zu verarbeiten, gemakkelijk te verwerken

3. Product portfolio linear joints





BOSTIK FP 401 FIRESEAL ACRYLIC

Product description

FP 401 Fireseal Acrylic is a 1-component fire resistant sealant based on acrylic dispersion. FP 401 Fireseal Acrylic is a plasto-elastic sealant which is suitable for up to 4 hours of fire resistant sealing of linear connection joints in gypsum and stony substrates. Fire resistance tested according to EN 1366-4.

Most important characteristics

- Fire resistance up to 4 hours
- Can be applied separately and in combination with FP 404 Fire Retardant PU (Gun)Foam in joints up to 30mm wide
- Can be applied in both vertical and horizontal joints
- Also certified for joints in metal-stud walls
- Excellent application and easy to finish
- Moving absorption up to 7.5%
- Paintable with most water based and synthetic paints
- High sound insulation
- 18 months storage time (under correct conditions)
- Tested for smoke resistance

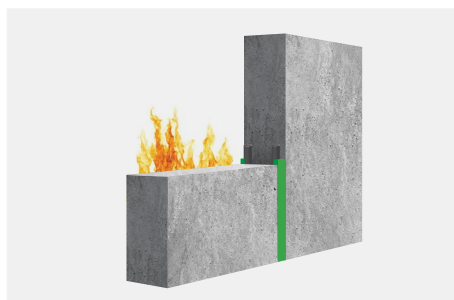
Certificates

- EN 1366-4
- EN 15651-1: F-EXT-INT - Class 7,5P
- DoP-number 612846-14-15-1
- Sound reduction measured according to ISO 10140-1:2012, joint 10mm x 10mm single sided seal with backer rod (pe/pu): Rs,w 53 dB
- A+ French VOC Regulation

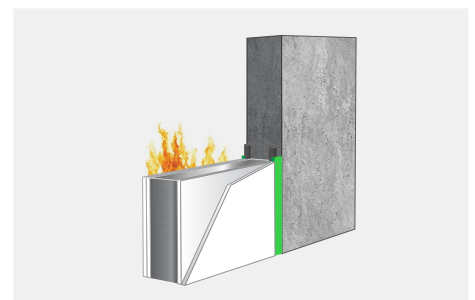
Approved and Certified Product
Tested by PEUTZ

Article number	EAN code	Colour	Packaging	Packed per
30612846	8713572041365	white	cartridge 310ml	12 pieces in a box

For more detailed information consult the technical datasheet and application guidelines of BOSTIK FP 401 FIRESEAL ACRYLIC. Before application consult the Peutz Classification Reports to ensure to achieve the intended fire resistance.



Application example 1: Sealing between stone and stone in combination with backer rod.



Application example 2: Sealing between stone and plasterboard in combination with backer rod.

BOSTIK FP 402 FIRESEAL SILICONE

Product description

A 1-component fire resistant, neutral curing silicone sealant. FP 402 Fireseal Silicone is specifically developed for fire resistant sealing of connection and expansion joints in constructions and has a movement absorption of 25%. Fire resistance tested according to EN 1366-4.

Most important characteristics

- Fire resistance up to 4 hours
- Can be applied separately and in combination with FP 404 Fire Retardant PU (Gun)Foam in joints up to 40mm wide
- Excellent application, does not slump
- Joint movement up to 25%
- UV, water and weather resistant
- Also suitable for external use
- Not paintable
- Tested for smoke resistance

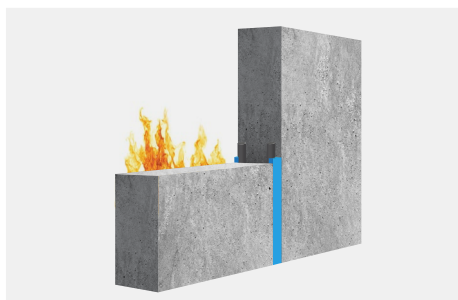
Certificates

- EN 1366-4
- EN 15651-1: F-EXT-INT-CC - Class 25LM
- EN 15651-2: G-CC - Class 25LM
- DoP-number 612844-14-15-1
- DIN4102 - part 1 - Class B1
- A+ French VOC Regulation

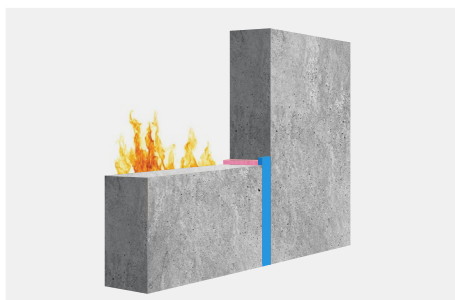


Article number	EAN code	Colour	Packaging	Packed per
30612844	8713572041372	white	cartridge 310ml	12 pieces in a box
30612849	8713572041396	grey	cartridge 310ml	12 pieces in a box
30612845	8713572041389	black	cartridge 310ml	12 pieces in a box
30615921	8713572042867	white	600 ml sausage	12 pieces in a box
30615382	8713572042508	grey	600 ml sausage	12 pieces in a box
30615925	8713572042881	black	600 ml sausage	12 pieces in a box

Approved and Certified Product
Tested by PEUTZ



Application example 1: Sealing between stone in combination with backer rod.



Application example 2: Sealing between stone in combination with FP 404 Fire Retardant PU (Gun)foam.

For more detailed information consult the technical datasheet and application guidelines of BOSTIK FP 402 FIRESEAL SILICONE. Before application consult the Peutz Classification Reports to ensure to achieve the intended fire resistance.



BOSTIK FP 403 FIRESEAL HYBRID

Product description

A 1-component, fire resistant hybrid based sealant. Bostik FP 403 Fireseal Hybrid is suitable for fire resistant sealing of linear joints up to 4 hours. Offers a moving absorption of 25%. This hybrid sealant can be applied in both vertical and horizontal joints. Sealing wall and floor or ceiling, (metal) frames and all possible metal stud (gypsum) connections are certified too.

Most important characteristics

- Fire resistance up to 4 hours
- Can be applied in joints up to 40mm wide
- Suitable for wall/ceiling and wall/floor connections
- Certified for steel and wooden frames
- Certified for metal-stud connections
- Excellent application and easy toolability
- Joint movement up to 25%
- Paintable with most water based and synthetic paints
- Minimum shrinkage
- UV, water and weather resistant
- High sound insulation
- 18 months storage time (under correct conditions)
- Tested for smoke resistance

Certificates

- EN 1366-4
- EN 15651-1: F-EXT-INT-CC - Class 25HM
- EN 15651-2: G-CC - Class 25HM
- DoP-number 612887-14-7-1
- Sound reduction measured according to ISO 10140-1:2012, joint 10mm x 10mm single sided seal with backer rod (pe/pu): Rs,w 53 dB
- A+ French VOC Regulation
- Emission EC1Plus

Approved and Certified Product

Tested by **PEUTZ**

Article number	EAN code	Colour	Packaging	Packed per
30612887	8713572041419	white	cartridge 290ml	12 pieces in a box
30612851	8713572041402	grey	cartridge 290ml	12 pieces in a box

For more detailed information consult the technical datasheet and application guidelines of BOSTIK FP 403 FIRESEAL HYBRID. Before application consult the Peutz Classification Reports to ensure to achieve the intended fire resistance.



Application example 1: Sealing between stone, wall / floor and wall / ceiling.



Application example 2: Sealing between stone and metal.

BOSTIK FP 404 FIRE RETARDANT PU FOAM

Product description

A modified, 1-component, fire resistant polyurethane foam. Bostik FP 404 Fire Retardant PU Foam offers fire resistance up to 120 minutes. Combined with other FP products up to 4 hours! Can be applied with hand adapter. The cans Bostik FP 404 Fire Retardant PU Foam are equipped with an adapter to apply the foam easy and accurate by hand.

Most important characteristics

- Applied separately up to 2 hours fire resistant, combined with other Bostik Fire Protect products up to 4 hours
- For use in joints up to 40mm wide
- Certified for wall-floor and wall-ceiling connections
- Also certified for wooden frames
- Easy to apply with adapter
- Simple and quick processing
- Tack free in 10 to 12 minutes
- High sound insulation
- Tested for smoke resistance

Certificates

- EN 1366-4
- DIN4102 - Part 1 - Class B1
- EN 13501-1 B, s1, d0
- Sound reduction measured according to ISO 10140-1:2012, joint 10mmx100mm fully filled: Rs,w 53 dB
- A+ French VOC Regulation
- Emicode EC1Plus



Article number	EAN code	Colour	Packaging	Packed per
30612888	8713572041433	pink	cannister 750 ml handheld	12 pieces in a box

Approved and Certified Product
Tested by PEUTZ



Application example 1: Sealing between stone.



Application example 2: Sealing between stone and wood in combination with FP 403 Fireseal Hybrid.

For more detailed information consult the technical datasheet and application guidelines of BOSTIK FP 404 FIRE RETARDANT PU FOAM. Before application consult the Peutz Classification Reports to ensure to achieve the intended fire resistance.



BOSTIK FP 404 FIRE RETARDANT PU GUNFOAM

Product description

A modified, 1-component, fire resistant polyurethane foam. Bostik FP 404 Fire Retardant PU Gunfoam offers fire resistance up to 120 minutes. Combined with other FP products up to 4 hours! Can be applied with gun. The cans Bostik FP 404 Fire Retardant PU Gunfoam are equipped with a connection to process the foam professionally with a PU Foamgun.

Most important characteristics

- Applied separately up to 2 hours fire resistant, combined with other Bostik Fire Protect products up to 4 hours
- For use in joints up to 40mm wide
- Certified for wall-floor / wall-ceiling connections
- Also certified for wooden frames
- Easy to apply with gun
- Simple and quick processing
- Tack free in 10 to 12 minutes
- High sound insulation
- Tested for smoke resistance

Certificates

- EN 1366-4
- DIN4102 - Part 1 - Class B1
- EN 13501-1 B, s1, d0
- Sound reduction measured according to ISO 10140-1:2012, joint 10mmx100mm fully filled: Rs,w 53 dB
- A+ French VOC Regulation
- Emission EC1Plus

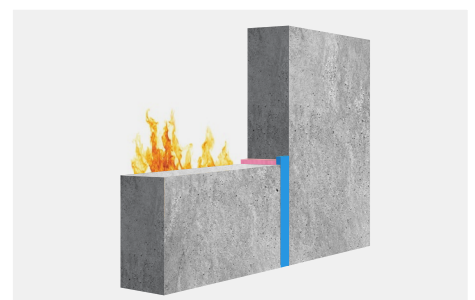
Approved and Certified Product
Tested by PEUTZ

Article number	EAN code	Colour	Packaging	Packed per
30612850	8713572041426	pink	cannister 750 ml gungrade	12 pieces in a box

For more detailed information consult the technical datasheet and application guidelines of BOSTIK FP 404 FIRE RETARDANT PU GUNFOAM. Before application consult the Peutz Classification Reports to ensure to achieve the intended fire resistance.



Application example 1: Sealing between stone and wood.



Application example 2: Sealing between stone in combination with FP 402 Fireseal Silicone.

4. Selection table linear joints



4. EN 1366-4 Selection tables linear joints

The tables on the next 10 pages contain possible solutions of an EN 1366-4 fire retardant sealing in various materials such as stone, wood, metal and plaster. We devide the tables in:

- 4.1 Stone / metal (horizontal & vertical)
- 4.2 Stone / wood (horizontal & vertical)
- 4.3 Stony materials (vertical)
- 4.3.1 Stone walls ≥100 mm (vertical)
- 4.3.2 Stone walls ≥115 mm (vertical)
- 4.4 Stone / plaster and plaster / plaster (horizontal & vertical)
- 4.5 Stone walls and floors / ceilings (horizontal)

The solutions are illustrated through application examples that indicate the material and the products used. Through colours the different Bostik FP products are highlighted.

= Bostik FP 401 Fireseal Acrylic

= Bostik FP 402 Fireseal Silicone

= Bostik FP 403 Fireseal Hybrid

= Bostik FP 404 Fire Retardant PU (Gun)Foam

= Bostik Backer Rod

4.1 Horizontal and vertical fire resistant sealing of joints between stone and metal.

Joints between stony material and metal come in all sorts of designs. These are often the connection of metal frames in a stony structure. The tested solutions can be used both horizontally and vertically. All metal connections are permitted (as long as the melting point is 1.000°C or higher). The metal frames* used

in practice have a higher melting point and lower heat conduction than the tested 8mm-thick steel profile. Wall thickness should be equal to or thicker than that shown in the tables. The tables below contain possible solutions for connecting metal in a fire retardant construction to stony material. The overview clearly shows how these solutions have been put together.



Double sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.



Joint completely filled with **Bostik FP 403 Fireseal Hybrid**.

Minutes of Fire Resistance		EI 30	EI 45	EI 60	EI 90	EI 120
Joint width	Joint depth (wall thickness)					
5 mm	100 mm	A, B	A, B	A*, B*	A*, B*	A*, B*
	150 mm	A	A	A	A*, B*	A*, B*
20 mm	100 mm	A, B	A, B	A*, B*	A*, B*	A*, B*
	150 mm	A	A	A	A*, B*	A*, B*

* Based on an Expert Review by the European Notified Body Peutz, EI 120 can be used here, given the fact that the metal frames used in practice conduct a lot less heat than the 8mm-thick steel profile prescribed and tested in the standard EN1366-4.

4.2 Horizontal and vertical fire resistant sealing of joints between stone and wood.

Joints between stony material and wood come in all sorts of designs. These are often the connection of wooden frames in a stony structure. The tested solutions can be used both horizontally and vertically. All types of wood are permitted

of the wood is greater than or equal to 500 kg/m³ (=spruce). Wall thickness should be equal to or thicker than that shown in the tables. The tables below contain possible solutions for connecting wood in a fire retardant construction to stony material. The overview clearly shows how these solutions have been put together.



Double sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.



Single sided with **Bostik FP 404 Fire Retardant PU Foam** in combination with **Bostik FP 403 Fireseal Hybrid**.



Joint completely filled with **Bostik FP 404 Fire Retardant PU Foam**.

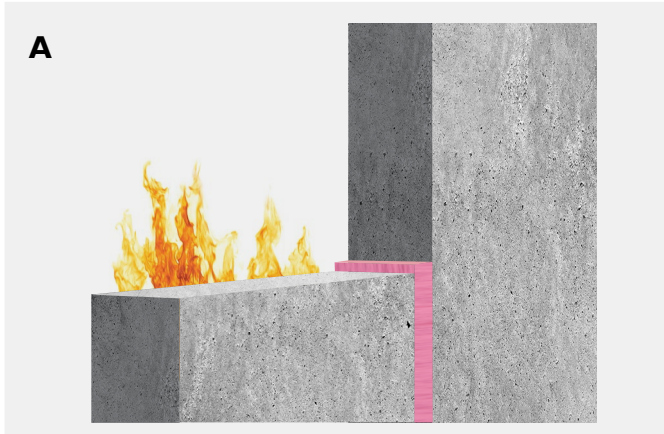
Minutes of Fire Resistance		EI 30	EI 45	EI 60	EI 90	EI 120
Joint width	Joint depth (wall thickness)					
5 mm	100 mm	C	C	C	C	C
8 mm	100 mm	C, D, E	C, D, E	C, D, E	C, D, E	C, D, (E*)
20 mm	100 mm	C, D, E	C, D, E	C, D, E	C, D, E	C, D, (E*)

* (E) = only vertical

4.3 Vertical fire resistant sealing of stony materials.

Joints between stony materials come in all kinds of constructions. The tested solutions can be used between all stony materials (aerated concrete, concrete, gypsum blocks, brick work, sand-lime brick with a density greater

than or equal to 650 kg/m^3). The wall thickness should be equal to or greater than shown in the tables. Below are tables containing possible solutions for vertical fire retardant sealing in stone material.



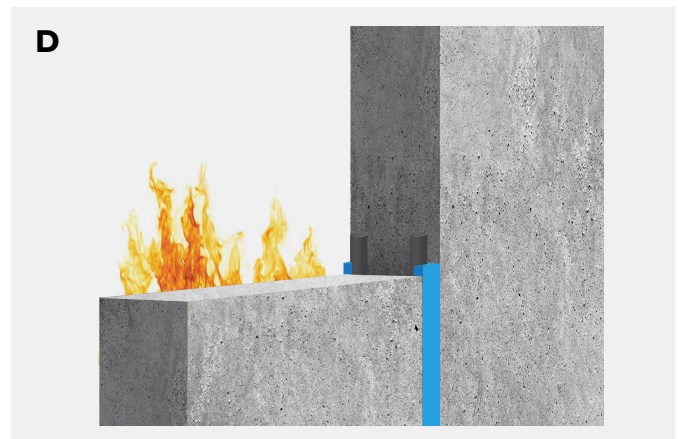
Joint completely filled with **Bostik FP 404 Fire Retardant PU Foam**.



Double sided joint with **Bostik FP 401 Fireseal Acrylic** in combination with Bostik Backer rod.



Single sided joint with **Bostik FP 401 Fireseal Acrylic** in combination with Bostik Backer rod.



Double sided joint with **Bostik FP 402 Fireseal Silicone** in combination with Bostik Backer rod.

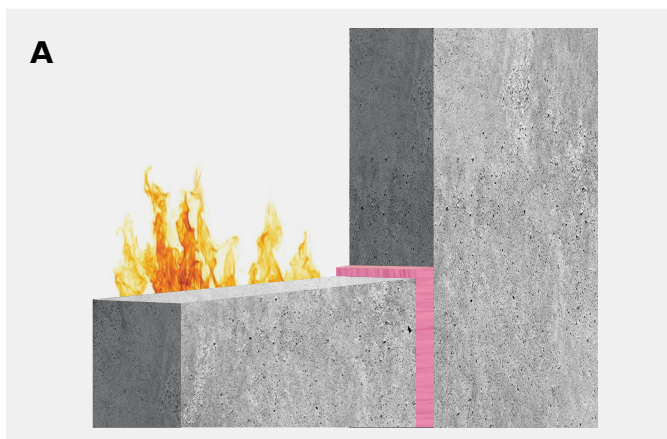


Double sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.

4.3.1 Vertical joint in full wall (aerated concrete, concrete, gypsum blocks, masonry, sand-lime brick density $\geq 650 \text{ kg/m}^3$), wall thickness $\geq 100 \text{ mm}$.

Minutes of Fire Resistance	EI 30	EI 45	EI 60	EI 90	EI 120	EI 180	EI 240
Joint width							
5 mm	B, D	B, D	B, D	B, D	B, D	B, D	-
8 mm	A, B, D	A, B, D	A, B, D	A, B, D	B, D	B, D	-
20 mm	A, B, D, F	A, B, D, F	B, D, F	B, D, F	B, D, F	D, F	-
25 mm	A, B, D, F	A, B, D, F	B, D, F	B, D, F	B, D, F	D, F	-
30 mm	A, B, D, F	A, B, D, F	B, D, F	B, D, F	B, D, F	D, F	-
40 mm	D, F	D, F	D, F	D, F	D, F	F	-





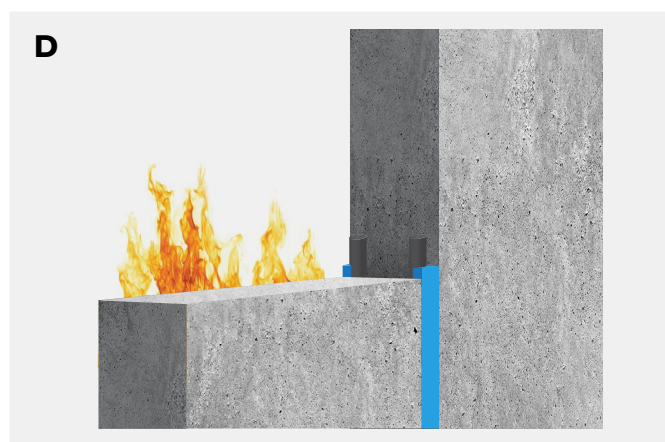
Joint completely filled with **Bostik FP 404 Fire Retardant PU Foam**.



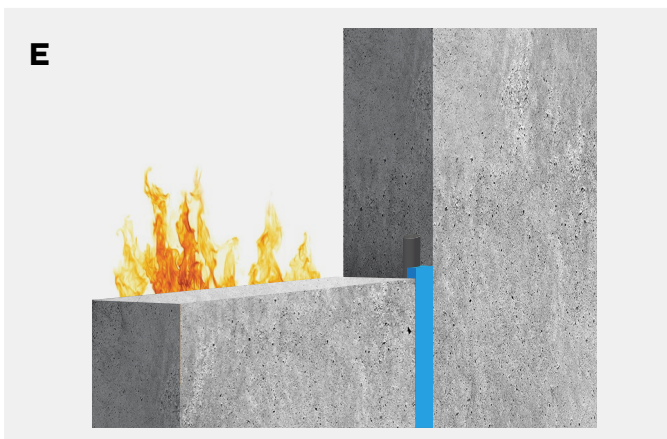
Double sided joint with **Bostik FP 401 Fireseal Acrylic** in combination with Bostik Backer rod.



Single sided joint with **Bostik FP 401 Fireseal Acrylic** in combination with Bostik Backer rod.



Double sided joint with **Bostik FP 402 Fireseal Silicone** in combination with Bostik Backer rod.



Single sided joint with **Bostik FP 402 Fireseal Silicone** in combination with Bostik Backer rod.



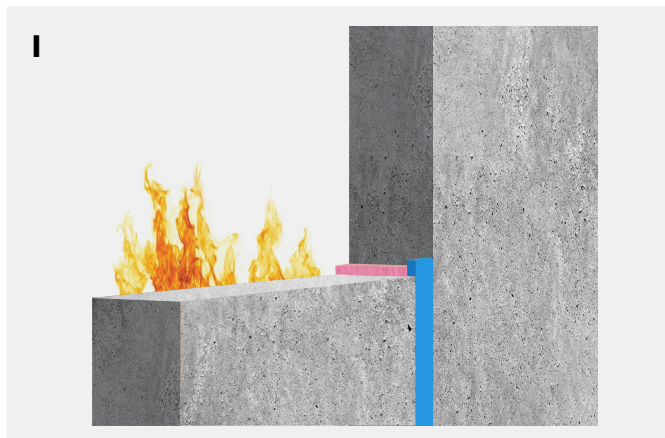
Double sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.



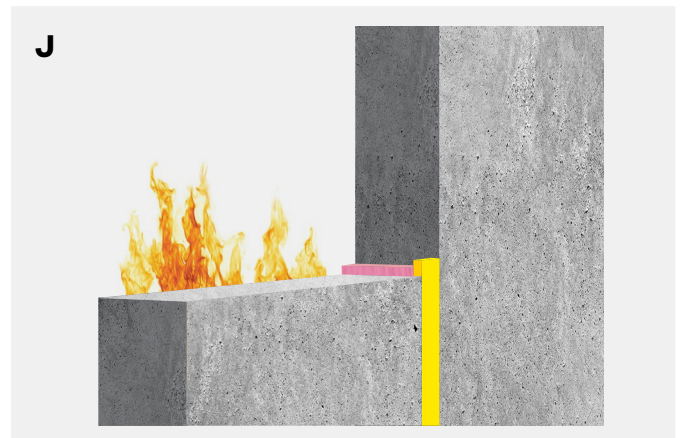
Single sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with **Bostik Backer rod**.



Single sided joint with **Bostik FP 401 Fireseal Acrylic** in combination with **Bostik FP 404 Fire Retardant PU Foam**.



Single sided joint with **Bostik FP 402 Fireseal Silicone** in combination with **Bostik FP 404 Fire Retardant PU Foam**.



Single sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with **Bostik FP 404 Fire Retardant PU Foam**.

4.3.2 Vertical joint in full wall (aerated concrete, concrete, gypsum blocks, masonry, sand-lime brick density $\geq 650 \text{ kg/m}^3$), wall thickness $\geq 115 \text{ mm}$.

Minutes of Fire Resistance	EI 30	EI 45	EI 60	EI 90	EI 120	EI 180	EI 240
Joint width							
5 mm	B, C, D, E, F, G	B, C, D, E, F, G	B, C, D, E, F, G	B, C, D, E, F, G	B, C, D, E, F, G	B, C, D, E, F, G	C, E, F
8 mm	A, B, C, D, E, F, G, H, I, J	A, B, C, D, E, F, G, H, I, J	A, B, D, E, F, G, H, I, J	A, B, D, F, H, I, J	A, B, D, F, H, I, J	B, D, F, H, I, J	F, H, I, J
20 mm	A, B, C, D, E, F, G, H, I, J	A, B, C, D, E, F, G, H, I, J	A, B, D, E, F, G, H, I, J	B, D, F, H, I, J	B, D, F, H, I, J	D, F, H, I, J	F
25 mm	A, B, D, E, F, H, I, J	A, B, D, E, F, H, I, J	B, D, E, F, H, I, J	B, D, F, H, I, J	B, D, F, H, I, J	D, F, H, I, J	F
30 mm	A, B, D, F, H, I	A, B, D, F, H, I	B, D, F, H, I	B, D, F, H, I	B, D, F, H, I	D, F, H, I	F
40 mm	D, I	D, I	D, I	D, I	D, I	I	-

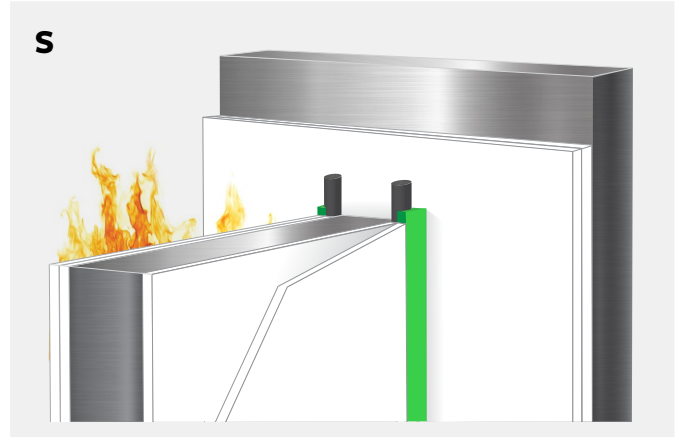
4.4 Horizontal and vertical sealing of joints between stone and plaster, and between plaster and plaster.

Joints between stony material and plaster come in all kinds of designs. These are often in metal-stud walls that are connected to concrete/stone walls and/or floors. The solutions for these can be used both horizontally and vertically.

Also vertical connections between plaster walls and other plaster walls. The wall thickness of both the stone wall and the plaster wall should be equal to or greater than that shown in the tables. Below are tables containing possible solutions for fire resistant connections for plaster. The overview clearly shows how these solutions have been put together.



Double sided joint with **Bostik FP 401 FiresealAcrylic** in combination with Bostik Backer rod.



Double sided joint in double plasterboard with **Bostik FP 401 Fireseal Acrylic** in combination with Bostik Backer rod.



Double sided joint in double plasterboard with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.



Double sided joint with **Bostik FP 403 Fireseal Hybrid**.



Single sided joint with **Bostik FP 403 Fireseal Hybrid**.



Double sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.



Single sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.



Single sided joint in double plasterboard with **Bostik FP 403 Fireseal Hybrid**.



Double sided joint in double plasterboard with **Bostik FP 403 Fireseal Hybrid**.

Minutes of Fire Resistance	EI 30		EI 45		EI 60		EI 90		EI 120	
Joint width	Joint depth (wall thickness)									
Vertical										
10 mm	75 mm*	S, T, U		S, T, U		S, T, U		-	-	
10 mm	100 mm*	R, S, T, W		R, S, T, W		R, S, T, W		R, S, T, W		R, S, T, W
Horizontal										
10 mm	75 mm*	U, V		U, V		U, V		-	-	
10 mm	100 mm*	R, W, X, Y, Z		R, W, X, Y, Z		R, W, X, Y, Z		R, W, X, Y, Z		R, W, X, Y, Z

* 75 mm (single boards) / 100 mm (double boards)

4.5 Horizontal and vertical sealing of joints between stone and stone walls and floors / ceilings.

Joints between stony materials come in all kinds of constructions. They are often vertical but can also be horizontal, for example connecting an aerated wall to the floor below it. Also horizontal connections between an aerated wall

to the ceiling above it. The wall thickness of both the stone wall and ceiling or floor should be equal to or greater than that shown in the tables. Below are tables containing possible solutions for fire resistant connections for stony materials. The overview clearly shows how these solutions have been put together.



Double sided joint with **Bostik FP 401 FiresealAcrylic** in combination with Bostik Backer rod.



Double sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.

4.5.1 Horizontal connection in full wall, wall-floor / wall-ceiling, wall thickness ≥ 100 mm.

Minutes of Fire Resistance	EI 30	EI 45	EI 60	EI 90	EI 120	EI 180	EI 240
Joint width							
10 mm	B, F	B, F	B, F	B, F	B, F	B, F	F
20 mm	B, F	B, F	B, F	B, F	B, F	B, F	F
30 mm	B, F	B, F	B, F	B, F	B, F	B, F	F
40 mm	F	F	F	F	F	F	-



Joint completely filled with **Bostik FP 404 Fire Retardant PU Foam**.



Fire sided single joint with **Bostik FP 402 Fireseal Silicone** in combination with Bostik Backer rod.



Single sided joint with **Bostik FP 402 Fireseal Silicone** in combination with Bostik Backer rod.



Fire sided single joint with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.

0



Single sided joint with **Bostik FP 403 Fireseal Hybrid** in combination with Bostik Backer rod.

4.5.2 Horizontal connection wall-floor / wall-ceiling, wall thickness ≥ 100 mm.

Minutes of Fire Resistance	EI 20	EI 30	EI 45	EI 60	EI 90	EI 120	EI 180	EI 240
Joint width								
8 mm	K	K	K	K	-	-	-	-
10 mm	K, L, M, N, O	K, L, M, N, O	K, L, M, N, O	L, M, N, O	L, M, N, O	M, O	-	-
20 mm	K, L, M, N, O	K, L, M, N, O	K, M, O	M, O	M	-	-	-
25 mm	K, L, M, N, O	K, L, M, N, O	K, M, O	M, O	M	-	-	-
30 mm	K, L, M, N, O	K, M, N, O	M, O	O	-	-	-	-
40 mm	F, K, L, M, N, O	F, M, N, O	F, M, O	F, O	-	-	-	-

4.5.3 Horizontal connection wall-floor / wall-ceiling, wall thickness ≥ 150 mm.

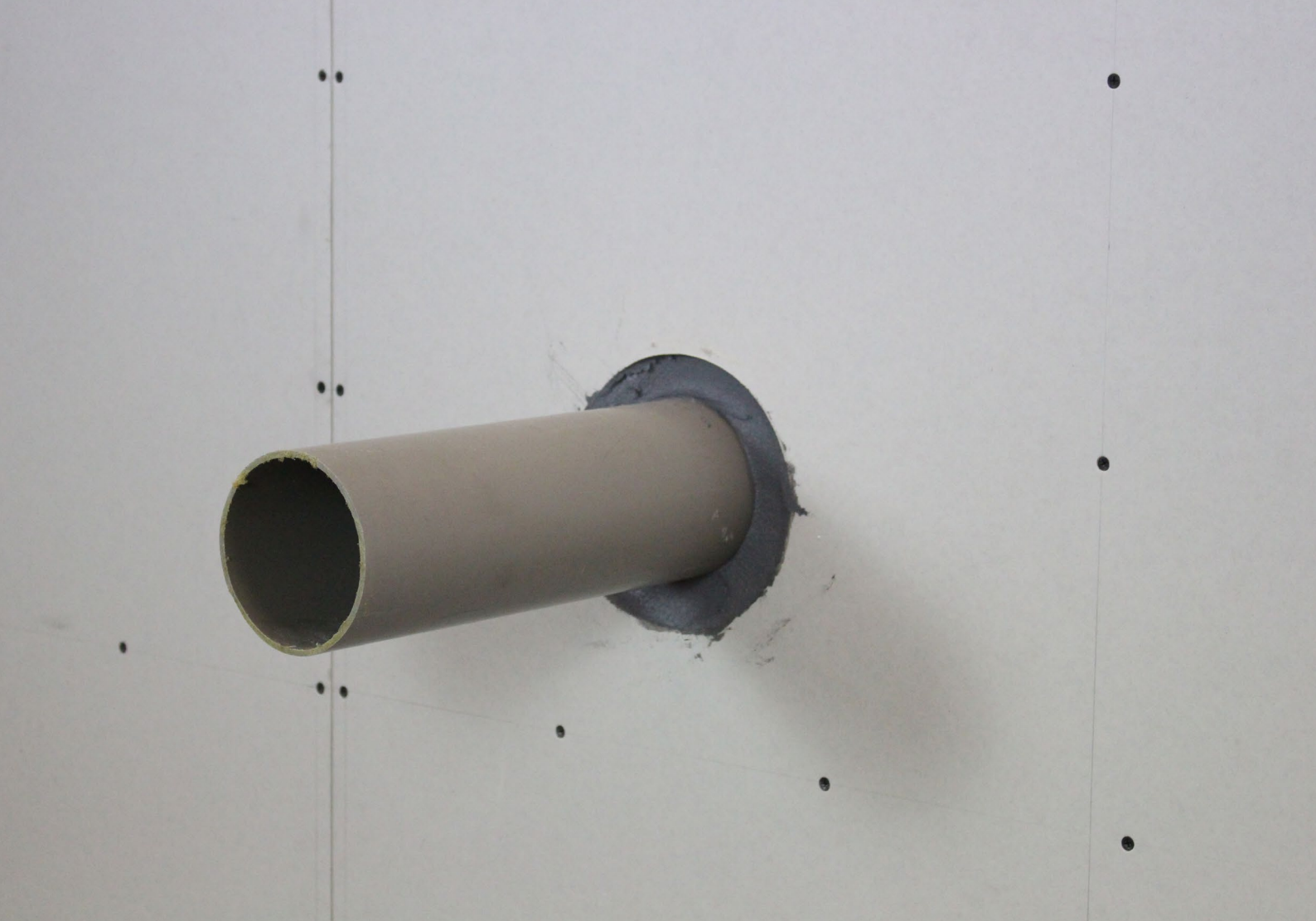
Minutes of Fire Resistance	EI 20	EI 30	EI 45	EI 60	EI 90	EI 120	EI 180	EI 240
Joint width								
8 mm	K	K	K	K	K	K	-	-
10 mm	K, L, M, N, O	K, L, M, N, O	K, L, M, N, O	K, L, M, N, O	K, L, M, N, O	F, M, O	-	-
20 mm	K, L, M, N, O	K, L, M, N, O	K, L, M, O	K, L*, M, O	K, M	K	-	-
25 mm	K, L, M, N, O	K, L, M, N, O	K, L, M, O	K, L*, M, O	M	-	-	-
30 mm	K, L, M, N, O	K, L, M, N, O	L, M, O	K, L*, O	-	-	-	-
40 mm	K, L, M, N, O	K, L, M, N, O	K, L, M, N, O	L, O	-	-	-	-

* Fixed depth of 19mm sealant



5. Service penetrations (EN 1366-3)





A fire compartment consists of fire resistant walls and floors. These walls and floors have openings through which pipes and electricity cables are transmitted. A fire compartment is not complete until these openings have been sealed safely using the correct materials. Products and systems tested in accordance with 1366-3 are used to seal openings and thus to ensure that the compartments are sufficiently fire resistant despite the openings for electricity cables and mechanical installations.

Modern buildings are packed full of services, cables and wires. Where these services penetrate fire resisting elements of the building there remains a weakness in the fire protection for that building. These penetrations must therefore be correctly sealed in order to maintain the buildings fire resistance levels. There are many factors to take into consideration when finding the correct solution to sealing service penetrations. Every service passing through fire resisting building elements reacts differently when there is a fire. There is therefore no single solution or product that can be used to effectively protect all service penetrations.

The fire resistant properties of our solutions have been tested in accordance with international standards by certified organisations (notified bodies). The results of these tests are summarised in international certificates. All our products and their comprehensive range of applications are CE marked and each have an ETA (European Technical Assessment). These specially developed products can be used separately, but combinations of products have also been tested. This enables us to provide a solution for almost every situation.

Our solutions for service penetrations consist of:

- Bostik FP 310 Intumescent Acrylic
- Bostik FP 311 Intumescent Graphite
- Bostik FP 312 Fire Retardant Coating
- Bostik FP 320 Fire Batt
- Bostik FP 330 Pipe Collar
- Bostik FP 340 Pipe Wrap
- Bostik FP 350 Graphite Plate
- Bostik FP 360 Putty Cord
- Bostik FP 370 Fireseal Mortar



6. Product portfolio service penetrations





BOSTIK FP 310 INTUMESCENT ACOUSTIC ACRYLIC

Product description

Bostik FP 310 Intumescent Acoustic Acrylic is a fire rated single component acrylic sealant specially designed to prevent the spread of fire and smoke through joints and openings in fire rated walls and floors including openings formed around building service penetrations. Bostik FP 310 Intumescent Acoustic Acrylic expands when heated and produces an efficient seal against fire, smoke and gas. When subjected to atmospheric conditions, the sealant cures and will retain a degree of elasticity for joint movement. Under fire exposure, Bostik FP 310 Intumescent Acoustic Acrylic creates a robust fire seal by the formation of a durable intumescent char and prevent the passage of fire and smoke for periods up to 4 hours. Bostik FP 310 Intumescent Acoustic Acrylic offers a very good sound insulation. Bostik FP 310 Intumescent Acoustic Acrylic is tested with many different types of penetrations through many different constructions.

Most important characteristics

- Certified to the latest European standards EN 1366-3 and EN 1366-4
- Fire resistance up to 4 hour
- Joint movement up to 12,5%
- Very high sound insulation
- Easy to apply with a smooth surface finish
- Paintable with most water based and alkyd paints
- Easy to clean
- Hardens quickly, tack free after 1 hour
- 18 months storage time (under correct conditions)

Certificates

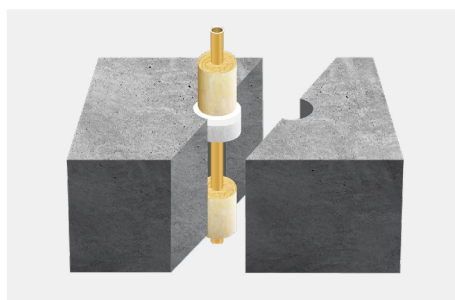
- ETA
- CE certificate 0843-CPR-0517
- DoP-number 614486-21-08-1
- UL-EU
- Sound insulation tested to ISO 10140-2:2010, seal ≥ 12 mm depth: Rw 62 dB
- A+ French VOC Regulation
- Emicode EC1Plus

Approved and Certified Product

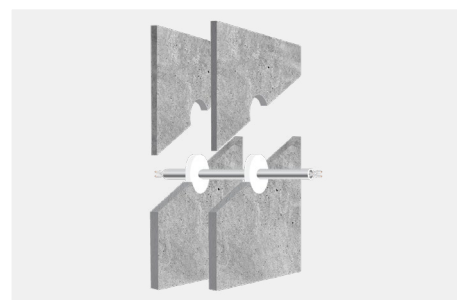


Article number	EAN code	Colour	Packaging	Packed per
30614486	8713572041594	white	cartridge 310ml	12 pieces in a box
30615383	8713572042485	white	sausage 600 ml	12 pieces in a box

For detailed information and more application examples, consult the installation instructions of BOSTIK FP 310 INTUMESCENT ACOUSTIC ACRYLIC. Before application consult the ETA to ensure to achieve the intended fire resistance.



Application example 1: Pipe sealing of penetrations in rigid floors.



Application example 2: Cable sealing of penetrations in gypsum, masonry or concrete walls.

BOSTIK FP 311 INTUMESCENT GRAPHITE

Product description

Bostik FP 311 Intumescent Graphite is a high specification formulation designed to prevent the spread of fire, smoke and gasses through openings in fire rated walls and floors. Bostik FP 311 Intumescent Graphite is a single component, water based, fire retardant sealing compound which contains a high concentration of heat expanding graphite material. Bostik FP 311 Intumescent Graphite expands when it is subjected to fire and closes openings around combustible pipes (e.g. PVC) or metal pipes fitted with combustible insulation. Bostik FP 311 Intumescent Graphite offers a very good sound insulation. Bostik FP 311 Intumescent Graphite is designed to fire seal difficult services which traditional fire rated mastics do not achieve such as large plastic pipes.

Most important characteristics

- Certified to the latest European standards EN 1366-3
- Fire resistance up to 4 hour
- Classified in most constructions for plastic pipes and cables
- Suitable for most surfaces, included concrete, bricks, steel, wood, gypsum, PVC and most non-porous surfaces
- High sound insulation
- Easy to apply
- Fast curing, tack free after 1 hour
- Paintable with most water based and alkyd paints
- 18 months storage time (under correct conditions)

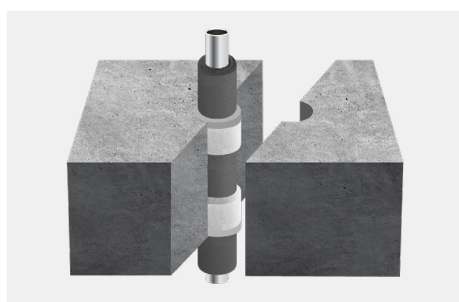
Certificates

- ETA
- CE certificate 0843-CPR-0518
- DoP-number 614867-21-08-1
- UL-EU
- Sound insulation tested to ISO 10140-2:2010, seal ≥ 25 mm depth: Rw 53 dB
- A+ French VOC Regulation
- Emicode EC1Plus



Article number	EAN code	Colour	Packaging	Packed per
30614867	8713572041600	anthracite	cartridge 310ml	12 pieces in a box

Approved and Certified Product



Application example 1: Pipe sealing of penetrations in rigid floors.



Application example 2: Pipe sealing of penetrations in drywall, masonry or concrete walls.

For detailed information and more application examples, consult the installation instructions of BOSTIK FP 311 INTUMESCENT GRAPHITE. Before application consult the ETA to ensure to achieve the intended fire resistance.

BOSTIK FP 312 FIRE RETARDANT COATING

Product description

Bostik FP 312 Fire Retardant Coating is a sprayable ablative coating specially designed to enhance, seal and fire protect stone wool fibres. The coating dries to give a flexible white surface finish. Stone wool fibres coated with Bostik FP 312 Fire Retardant Coating prevent the spread of fire and smoke through openings in fire rated walls and floors where openings are formed to allow the installation of multiple building services. The system will contribute maintaining the acoustic design performance.



Most important characteristics

- Certified to the latest European standard EN 1366-3 & 4
- Fire resistance up to 4 hour
- Permanently flexible - will accommodate movements during fire and smaller movements in the construction it has been fitted within
- Easy and very quick to apply
- The coating applied on stone wool fibres is classified for all types of constructions with or without building service penetrations
- May be used in unlimited lengths in walls with heights up to 1200mm and in floors with widths up to 120mm
- May be installed in gypsum walls without framing around the opening
- Paintable with most water based and alkyd paints
- Easy to clean
- Once fully cured, resistant of water and frost

Certificates

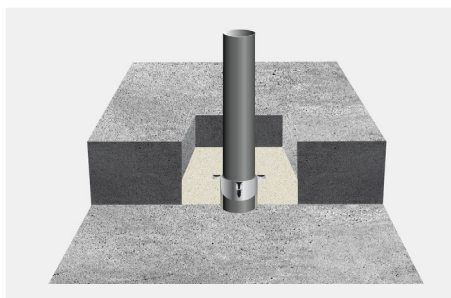
- ETA
- CE certificate 0843-CPR-0519
- DoP-number 614868-21-08-1
- Sound insulation tested to ISO 10140-2:2010, 1.00 film thickness on both sides of minimum 50 mm thick stone wool with density minimum 160 kg/m³: Rw 55 dB
- A+ French VOC Regulation
- Complies with requirements of M1 Protocol

Approved and Certified Product



Article number	EAN code	Colour	Packaging	Packed per
30614868	8713572041617	white	pail 8 ltr	pail

Before application consult the ETA to ensure to achieve the intended fire resistance.



Application example 1: Pipe sealing of penetrations in rigid floors.

BOSTIK FP 320 FIRE BATT

Product description

Bostik FP 320 Fire Batt is a high density stone wool board over-coated with Bostik FP 312 Fire Retardant Coating, designed to maintain the fire resistance of separating walls and floors where they are breached by single or multiple building services. The top coating provides additional protection by significantly reducing the permeability of the stone wool core and prevents the passage of hot gases, thus reducing the temperature rise on the unexposed side and reducing heat conduction through building services. On site, Bostik FP 320 Fire Batt must be used together with Bostik FP 310 Intumescent Acrylic for sealing around building services and the surrounding construction.



Most important characteristics

- Certified to the latest European standards EN 1366-3
- Classified for all types of constructions with or without building service penetrations
- Simple and very quick to install
- Permanently flexible, will accommodate movements during fire and smaller movements in the construction it has been fitted within
- Suitable for most surfaces, including concrete, bricks, masonry, steel, wood, gypsum board, glass, plastic and most non-porous surfaces
- May be used in unlimited lengths in walls with heights up to 1200mm and in floors with widths up to 800mm
- May be installed in gypsum walls with or without framing around the opening
- Paintable with most water based and synthetic paints
- Once fully cured, the batt resists UV, humidity and frost
- Unlimited storage time (under correct conditions)
- Halogen free with added fungicides

Certificates

- ETA
- CE certificate 0843-CPR-0520
- DoP-number 614782-21-08-1
- UL-EU
- Sound insulation tested to ISO 10140-2:2010, single 50 mm Bostik FP 320 Fire Batt: Rw 55 dB
- A+ French VOC Regulation

Article number	EAN code	Colour	Dimension	Packed per
30614782	8713572041624	white	50mmx60cmx120cm	1 piece in foil
30616370	8713572042904	white	60mmx60cmx120cm	1 piece in foil



Application example 1: Sealing cable trays in breached walls.



Application example 2: Pipe sealing in drywalls, masonry or concrete walls

For detailed information and more application examples, consult the installation instructions of BOSTIK FP 320 FIRE BATT. Before application consult the ETA to ensure to achieve the intended fire resistance.

BOSTIK FP 330 PIPE COLLAR



Product description

Bostik FP 330 Pipe Collar is a fire collar which expands in the case of a fire to fill voids left by melting plastic and burning of combustible pipe insulation. Bostik FP 330 Pipe Collar consists of a split white coated, circular steel casing designed to fit around plastic pipes. The collars have a secure and simple locking device. The steel sleeve contains a graphite based expanding material which on exposure to heat fills voids left by combustible pipes and pipe insulation passing through fire walls and floors.

Most important characteristics

- Certified to the latest European standards EN 1366-3
- Fire resistance up to 4 hours for both integrity and insulation
- Fast expanding graphite material
- Classified for fire sealing all types of constructions and many different building service penetrations including plastic pipes, composite pipes, metal pipes and cable bundles
- Approved plastic pipe sizes range from smallest pipes available to Ø 400mm, each with a wide range of pipe wall thicknesses
- Collars are available in two different heights for different fire classifications to maximize cost efficiency
- Smaller pipes can be fitted within larger collars with the benefit of accommodating pipes that are at an angle or if the opening around the pipe is too large
- Tested and certified for U/U pipe end applications
- No emissions, environmental and user friendly
- Very easy to install using widely available standard fixings
- Excellent sound insulation
- Unlimited storage time (under correct conditions)

Certificates

- ETA
- CE certificate 0843-CPR-0521
- DoP-number 614856-21-08-1
- UL-EU
- Sound insulation tested to ISO 10140-2:2010, Bostik FP 330 Pipe Collar in walls: Rw 58 dB

Approved and Certified Product

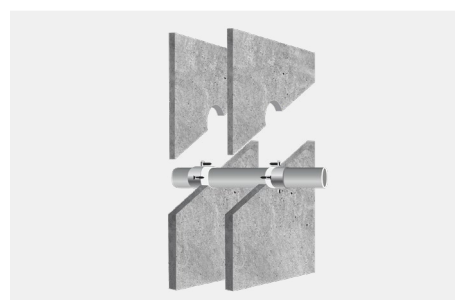


Article number	EAN code	Colour	Dimensions	Packed per
30614856	8713572041631	white	Ø75/30mm	24 pieces in a box
30615019	8713572042331	white	Ø75/50mm	24 pieces in a box
30614857	8713572041648	white	Ø82/30mm	24 pieces in a box
30615018	8713572042348	white	Ø82/50mm	24 pieces in a box
30614858	8713572041655	white	Ø110/30mm	24 pieces in a box
30615017	8713572042355	white	Ø110/50mm	24 pieces in a box
30614859	8713572041662	white	Ø125/60mm	20 pieces in a box
30614860	8713572042218	white	Ø160/60mm	12 pieces in a box
30614861	8713572042225	white	Ø200/75mm	1 piece in a box
30614862	8713572042232	white	Ø250/75mm	1 piece in a box

For detailed information and more application examples, consult the installation instructions of BOSTIK FP 330 PIPE COLLAR. Before application consult the ETA to ensure to achieve the intended fire resistance.



Application example 1: Pipe sealing in rigid floors.



Application example 2: Pipe sealing in drywalls, masonry or concrete walls.

BOSTIK FP 340 PIPE WRAP

Product description

Bostik FP 340 Pipe Wrap is a flexible sleeve which expands vastly in case of fire. Each pipe wrap consists of a graphite based reactive intumescent strip, which reacts to heat and closes the opening left by the softening plastic pipe or combustible pipe insulation in a fire. The pipe wrap is installed completely around the pipes or insulation and secured with the self-adhesive tape. The annular space around the pipe wrap is sealed with Bostik FP 320 Fire Batt and Bostik FP 310 Intumescent Acrylic.



Most important characteristics

- Certified to the latest European standards EN 1366-3
- Fire resistance up to 4 hours for both integrity and insulation
- For plastic pipes and metal pipes with continuous combustible pipe insulation
- For plastic pipes with cables (conduits)
- Certified for PVC-U, PVC-C, PE (LD-PE, MD-PE, HD-PE), ABS, SAN+PVC and PP pipes
- Tested and certified for U/U pipe end applications
- Classified for fire sealing in all types of constructions
- No emissions, environmental and user friendly
- Very easy to install
- Very good sound insulation
- Not paintable
- Unlimited storage time (under correct conditions)

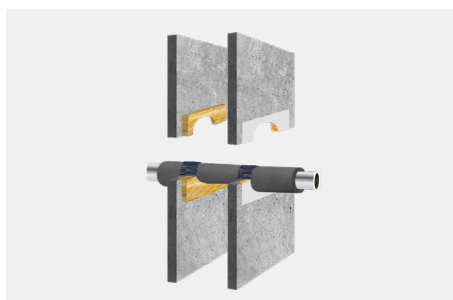
Certificates

- ETA
- CE certificate 0843-CPR-0522
- DoP-number 614856-21-08-1
- UL-EU
- Sound insulation tested to ISO 10140-2:2010, Bostik FP 340 Pipe Wrap installed in Bostik FP 320 Fire Batt: Rw 55 dB, Bostik FP 340 Pipe Wrap installed in Bostik FP 370 Fireseal Mortar: Rw 64 dB

Article number	EAN code	Colour	Dimensions	Packed per
30614863	8713572041679	white	Ø55mm	25 pieces in a box
30614864	8713572041686	white	Ø82mm	25 pieces in a box
30614865	8713572041693	white	Ø110mm	25 pieces in a box
30614866	8713572041709	white	Ø125mm	20 pieces in a box
30615057	8713572042393	black	50mmx25m	1 piece in a box
30615056	8713572042409	black	75mmx25m	1 piece in a box



Application example 1: Pipe Sealing in rigid floors.



Application example 2: Pipe Sealing in gypsum, masonry or concrete walls.

For detailed information and more application examples, consult the installation instructions of BOSTIK FP 340 PIPE WRAP. Before application consult the ETA to ensure to achieve the intended fire resistance.

BOSTIK FP 350 GRAPHITE PLATE



Product description

The Bostik FP 350 Graphite Plate is a pre-formed self-adhesive intumescent plate used to reinstate the fire resistance performance of flexible wall constructions where they are penetrated by plastic wall / socket boxes. Bostik PF 350 Graphite Plate immediately reacts to fire through heat and rapidly expands and fills the box, limiting fire and smoke from passing through. It is also tested with cable and conduits connected to the socket box to prevent the passage of smoke and fire through the electrical conduits between socket boxes. Bostik FP 350 Graphite Plate will reinstate the fire resistance performance of flexible wall constructions for up to 120 minutes.

Most important characteristics

- Certified to the latest European standards EN 1366-3
- Fast expanding graphite material
- For flexible walls with a minimum thickness of 75 mm
- Can be used on insulated and uninsulated walls
- Tested with a wide range of cables and conduits interconnected between boxes
- Tested with empty conduits between boxes for future cable transits
- Very quick and easy to install
- Ready to fit
- Unlimited storage time (under correct conditions)

Certificates

- ETA
- CE certificate 0843-CPR-0523
- DoP-number 615087-21-08-1

Approved and Certified Product



Before application consult the ETA to ensure to achieve the intended fire resistance.

Article number	EAN code	Colour	Dimensions	Packed per
30615087	8713572041723	grey	45 x 45mm	10 pieces in a box
30615086	8713572041730	grey	Ø59mm	10 pieces in a box

BOSTIK FP 360 PUTTY CORD

Product description

Bostik FP 360 Putty Cord is a silicon based fire rated putty, hand workable, re-usable and re-serviceable due to its non-setting properties. Bostik FP 360 Putty Cord contains a low pressure intumescent for optimal fire protection. Bostik FP 360 Putty Cord is designed to be easily fitted around service penetrations where the gap around the services is very small, or there is no gap at all so a conventional fire rated sealant is impossible or difficult to fit due to the required depth and backing material. The putty cords are fitted covering the gap around the services and does not need to fill the gap to the required dept. Bostik FP 360 Putty Cord will reinstate the fire rating of the partition and prevent the passage of smoke and flames in a fire, whilst also limiting sound and air movement around the service.



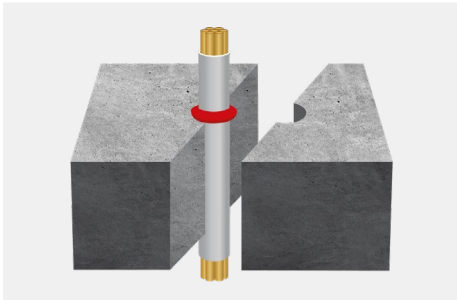
Most important characteristics

- Certified to the latest European standards EN 1366-3
- Fire resistance up to 120 minutes for both integrity and insulation
- Fire sealing without any minimum annular width around services
- For cables, steel pipes, copper pipes and alupex pipes
- Gives service penetrations a high fire resistance in dry lining partitions and masonry or concrete walls and floors
- Stops penetration of both cold and hot smoke
- Self-adhesive and very easy to apply without tools
- Unaffected by moisture: can be used in wet rooms
- Never hardens and ensures a tight fit
- Can be reshaped in other sizes if necessary
- Environment- and user friendly, contains no solvents or VOC's
- Very easy to install

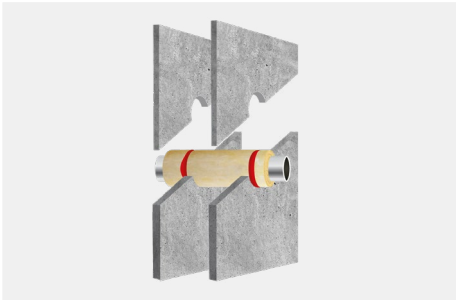
Certificates

- ETA
- CE certificate 0843-CPR-0524
- DoP-number 615327-21-08-1
- UL-EU

Article number	EAN code	Colour	Dimensions	Packed per
30615327	8713572041747	red	20cm length	5 pieces in a box



Application example 1: Sealing cables in rigid floors.



Application example 2: Sealing pipes in gypsum, masonry or concrete walls.

For detailed information and more application examples, consult the installation instructions of BOSTIK FP 360 PUTTY CORD. Before application consult the ETA to ensure to achieve the intended fire resistance.



BOSTIK FP 370 FIRESEAL MORTAR

Product description

Bostik FP 370 Fireseal Mortar is a dry white powder consisting of inorganic compounds and perlite. When mixed with water, the compounds form a highly thermally insulating fire sealing compound to prevent the spread of fire and smoke through openings in fire rated walls and floors, including openings formed around building service penetrations. Bostik FP 370 Fireseal Mortar expands approx. 1% by hydraulic action during curing ensuring a very tight seal around the service penetrations and the surrounding opening apertures. Bostik FP 370 Fireseal Mortar is easy to sand or drill. The compound dries to an off-white colour which may be painted if required. Bostik FP 370 Fireseal Mortar will also maintain the acoustic design performance in walls and floors.

Most important characteristics

- Certified to the latest European standard EN 1366-3
- Fire resistance up to 4 hour
- The fire performance specification of the compound has been derived when the seal has been left to cure for 1 month
- Classified in walls and floors of concrete, brick, gypsum etc.
- Suitable for cables, bundled cables, cable racks, cable trays, steel, copper, alupex, plastic pipes and air ventilation ducts
- High degree of mechanical resistance; the seal is load bearing without reinforcement
- No priming necessary prior to application in most building material substrates however metal services in contact with the seal must be corrosion protected
- Suitable for most surfaces, included concrete, bricks, Leca, steel, plastic etc., but not suitable to fitting of doors or in service openings that involve movement
- The product is certified for use in walls but it is recommended to use Bostik FP 320 Fire Batts for these applications
- Easy to apply leaving a very smooth finish
- Fully set within 1 hour

Certificates

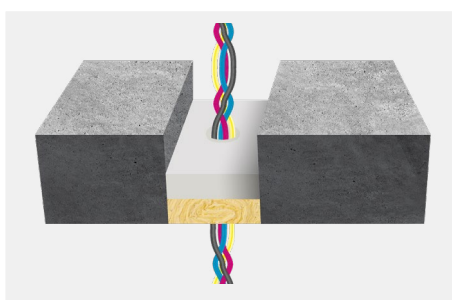
- ETA
- CE certificate 0843-CPR-0525
- DoP-number 615213-21-08-1
- UL-EU
- Sound insulation tested to ISO 10140-2:2010, Single sided cast ≥ 50 mm thick as linear seal: Rw 64 Db, Double sided cast ≥ 25 mm thick as linear seal: Rw 64 dB, Single sided cast ≥ 50 mm thick as large seal: Rw 48 dB, Double sided cast ≥ 25 mm thick as large seal: Rw 48 dB
- A+ French VOC Regulation
- Emicode EC1Plus

Approved and Certified Product



Article number	EAN code	Colour	Dimensions	Packed per
30615213	8713572042270	white	15 kg	bag

For detailed information and more application examples, consult the installation instructions of BOSTIK FP 370 FIRESEAL MORTAR. Before application consult the ETA to ensure to achieve the intended fire resistance.



Application example 1: Cable sealing in rigid floors.



Application example 2: Pipe sealing in rigid floors.

7. Product selector service penetrations

Seal size	Construction	Services	Bostik Products
Gap between 0 and 10mm	Walls and floors	Cables	FP 360 Putty Cord
		Metal pipes; un-insulated or mineral wool insulations	
		Metal pipes; combustible insulations	FP 330 Pipe Collar
		Plastic pipes	
Gap between 10 and 30mm		Cables	FP 310 Intumescent Acoustic Acrylic
		Metal pipes; un-insulated or mineral wool insulations	
		Metal pipes; combustible insulations	
		Plastic pipes	FP 310 Intumescent Acoustic Acrylic, FP 311 Intumescent Graphite or FP 330 Pipe Collar
Gap above 30mm	Walls	Cables and cable trays	FP 320 Fire Batt
		Metal pipes; un-insulated or mineral wool insulations	
		Metal pipes; combustible insulations	FP 320 Fire Batt &
		Plastic pipes	FP 340 Pipe Wrap
	Floors	Cables and cable trays	FP 370 Fireseal Mortar
		Metal pipes; un-insulated or mineral wool insulations	
		Metal pipes; combustible insulations	FP 370 Fireseal Mortar &
		Plastic pipes	FP 340 Pipe Wrap

* Before application consult the ETA and installation instructions to ensure to achieve the intended fire resistance.



Type of penetration	Seals without penetrations						Cables						
Sizes	30mm	50mm	100mm	300x300mm	1200x2400mm	1200x∞mm	≤Ø21mm single	≤Ø21mm bundled	≤Ø50mm single	≤Ø50mm bundled	≤Ø80mm single	≤Ø80mm bundled	Trays & ladders
FP 310 INTUMESCENT ACOUSTIC ACRYLIC	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	✗
FP 311 INTUMESCENT GRAPHITE	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✓
FP 320 FIRE BATT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FP 330 PIPE COLLAR	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
FP 340 PIPE WRAP	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
FP 360 PUTTY CORD	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✗	✗
FP 370 FIRESEAL MORTAR	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓

✓ = Yes ✗ = No



Pipes	Steel		Copper		Alupex		Plastic							
Sizes	Without insulation ≤ Ø 325mm		Without insulation ≤ Ø 54mm		Without insulation ≤ Ø 75mm		≤ Ø 32mm	≤ Ø 40mm	≤ Ø 75mm	≤ Ø 110mm	≤ Ø 160mm	≤ Ø 400mm	Conduits	PEX pipe-in-pipe
FP 310 INTUMESCENT ACOUSTIC ACRYLIC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓
FP 311 INTUMESCENT GRAPHITE	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✗	✗	✓	✗
FP 320 FIRE BATT	✓	✓	✓	✓	✓	✓	✓	✓*	✓*	✓*	✓*	✓*	✓	✓*
FP 330 PIPE COLLAR	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓	✗	✗
FP 340 PIPE WRAP	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓
FP 360 PUTTY CORD	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗
FP 370 FIRESEAL MORTAR	✓	✓	✓	✓	✓	✓	✓	✓	✓*	✓*	✓*	✓*	✓	✓*

✓ = Yes ✗ = No ✓* = Yes, in combination with Bostik FP 340 Pipe Wrap

8. Application areas



BOSTIK FP 310 INTUMESCENT ACOUSTIC ACRYLIC

A fire rated single component acrylic sealant specially designed for fire sealing.

See page 26 for more details.



BOSTIK FP 402 FIRESEAL SILICONE

A fire resistant, neutral curing silicone sealant.

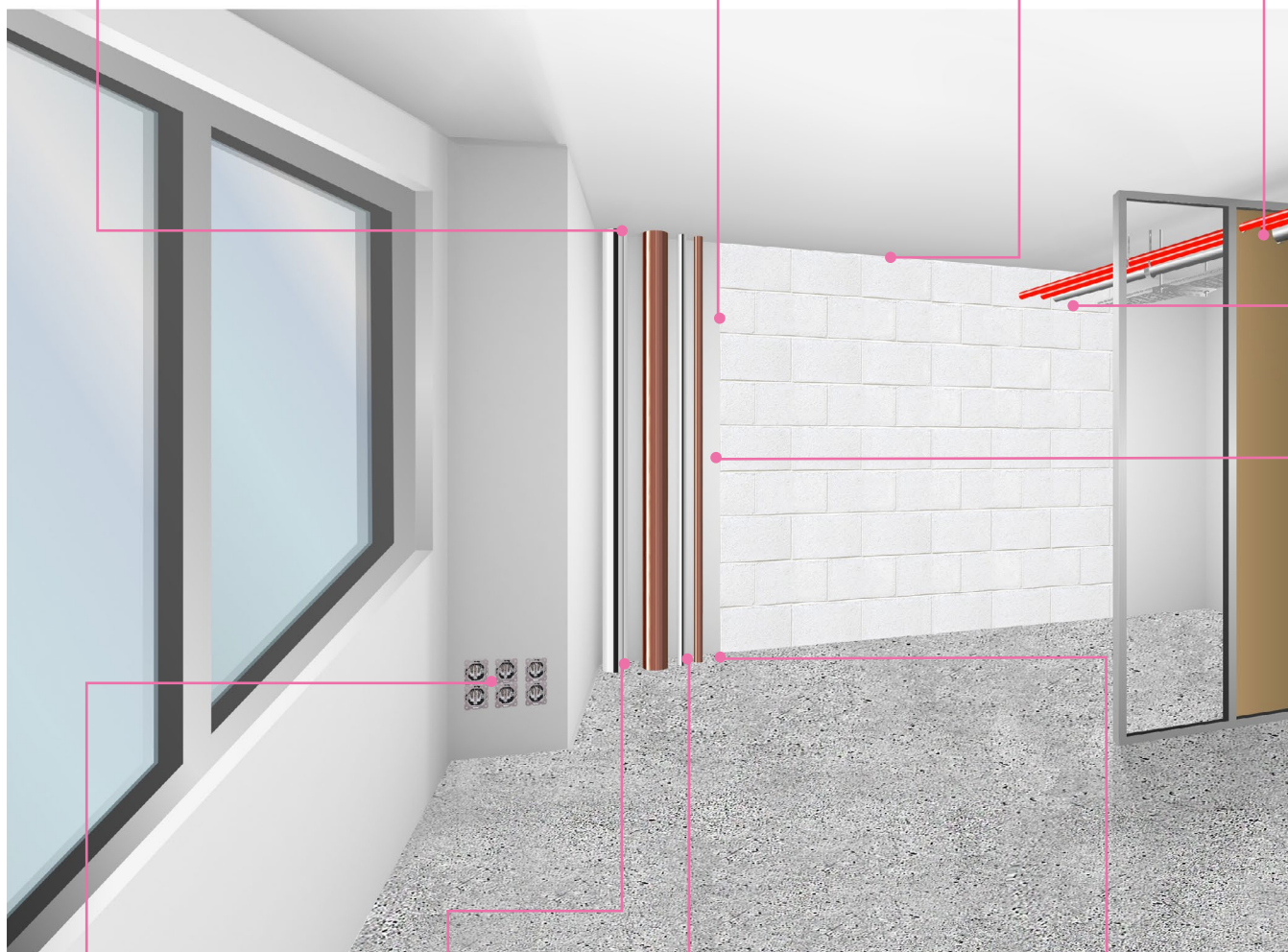
See page 11 for more details.



BOSTIK FP 403 FIRESEAL HYBRID

A 1-component, fire resistant hybrid based sealant.

See page 12 for more details.



BOSTIK FP 350 GRAPHITE PLATE

A pre-formed self-adhesive intumescent plate for electric sockets.

See page 32 for more details.



BOSTIK FP 330 PIPE COLLAR

A fire collar which expands in the case of a fire.

See page 30 for more details.



BOSTIK FP 360 PUTTY CORD

A silicon based fire rated re-usable and hand workable putty.

See page 33 for more details.



BOSTIK FP 312 FIRE RETARDANT COATING

A sprayable abrasive coating specially designed to enhance, seal and fire protect stone wool fibres.

See page 28 for more details.



BOSTIK FP 340 PIPE WRAP

A flexible sleeve which expands vastly in case of fire.

See page 31 for more details.



BOSTIK FP 311 INTUMESCENT GRAPHITE

A high specification formulation designed to prevent the spread of fire, smoke and gasses.

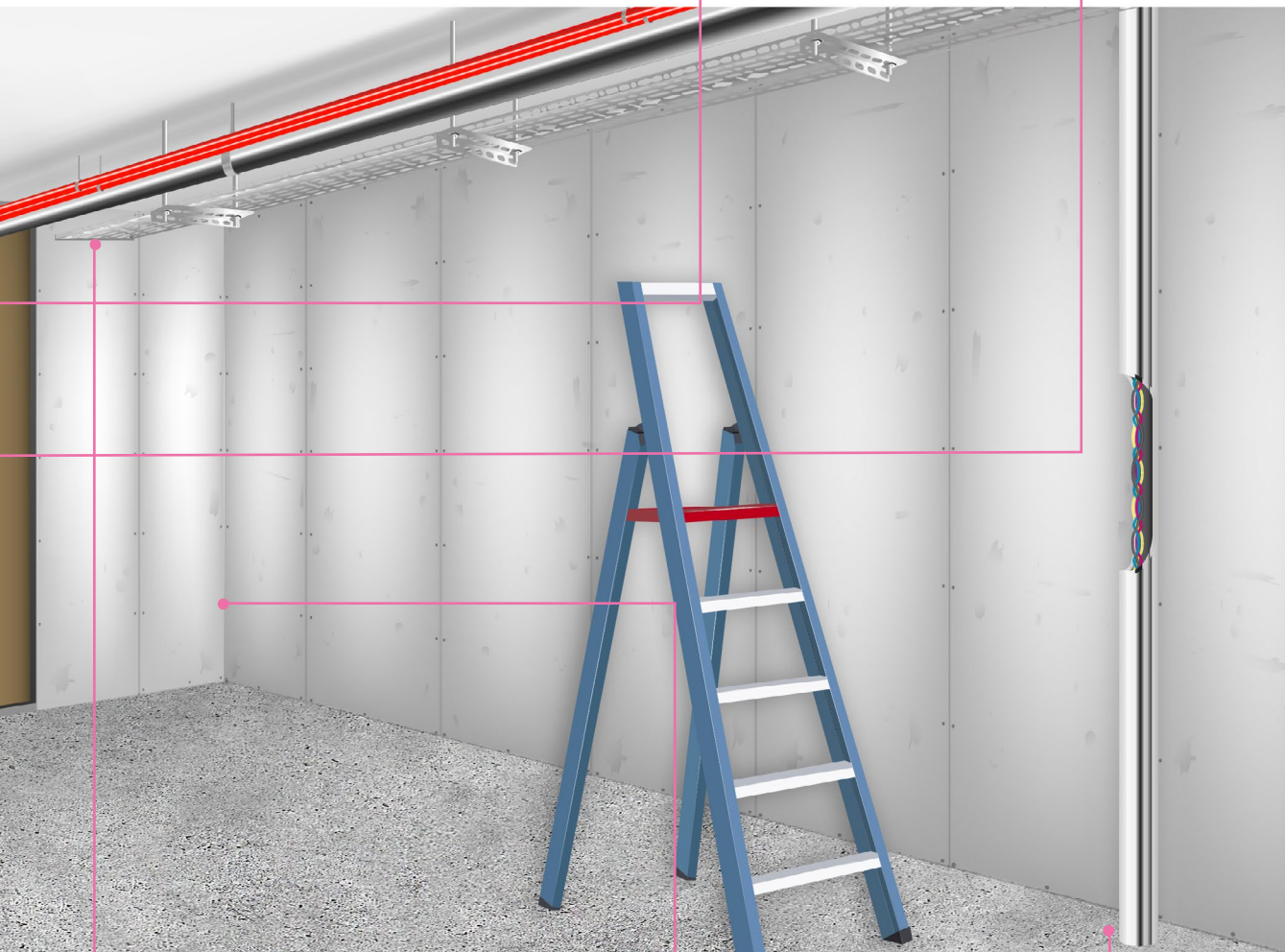
See page 27 for more details.



BOSTIK FP 404 FIRE RETARDANT PU GUNFOAM

A modified, 1-component, fire resistant polyurethane foam.

See page 14 for more details.



BOSTIK FP 320 FIRE BATT

A high density stone wool board over-coated with Bostik FP 312 Fire Retardant Coating.

See page 29 for more details.



BOSTIK FP 401 FIRESEAL ACRYLIC

A 1-component fire resistant sealant based on acrylic dispersion.

See page 10 for more details.



BOSTIK FP 370 FIRESEAL MORTAR

A dry white powder consisting of inorganic compounds and perlite.

See page 34 for more details.

9. Guns and accessoires



HANDGUN MAXI SEALANT

Product description

Open handgun for cartridges for medium heavy applications. Provided with a regulator for two different pressure settings. The first position keeps constant pressure on the plunger which results in a fluent beat. The second position eases making an interruption.

Article number	EAN code	Colour	Packaging	Packed per
30181583	8713572024481	dark blue	box	1 piece



HAND GUN H45

Product description

Half open professional hand gun for tough sealants and adhesives.

Article number	EAN code	Colour	Packaging	Packed per
30181722	8713572451225	black / silver	box	1 piece



HAND GUN SUPERGUN OPEN

Product description

Open professional hand gun for tough sealants and adhesives.

Article number	EAN code	Colour	Packaging	Packed per
30181583	8713572024481	orange	box	1 piece



HAND GUN PZ 600

Product description

Professional closed hand gun for 600 ml foil packs.

Article number	EAN code	Colour	Packaging	Packed per
30181587	8713572450877	aluminum	box	1 piece



AIRPRESSURED HAND GUN APG600

Product description

Professional closed hand gun for 600 ml foil packs.



Article number	EAN code	Colour	Packaging	Packed per
30182450	87135720247572	aluminum	box	1 piece

PU FOAMGUN

Product description

Metal dosing gun for PU foam.



Article number	EAN code	Colour	Packaging	Packed per
30181671	8713572024542	aluminum/black	box	1 piece

GUN & FOAM CLEANER

Product description

Solvent in can for cleaning and washing non-cured PU foam and cleaning PU guns.



Article number	EAN code	Colour	Packaging	Packed per
30607097	8713572035661	transparent	500 ml can	Box with 12 pieces

FINISHING SOAP

Product description

Ready to use soap solution, especially for finishing sealants. Suitable for silicon, hybrid, acrylic and PU sealants. PH neutral.



Article number	EAN code	Colour	Packaging	Packed per
30608173	8713572039119	transparent	1l spray bottle	Box with 12 pieces
30610381	8713572039713	transparent	10l jerrycan	1 piece



10. Certification

The Bostik Fire Protect range complies to many well-known industry standard certifications. Below we highlight and explain the certification in more detail.



CE Classification (Europe)

In today's world globalization and harmonization have become common and familiar terms. This is also true at building standards and regulations. Within Bostik we embrace this movement and strive for a globalized standard which provides transparency and simplicity in sealing and bonding.



UL-EU

The UL-EU Mark is a voluntary pan-European certification Mark of Underwriters Laboratories for all products where an EN standard exists. UL-EU Mark is intended for use on products destined for the European marketplace. It means that UL has evaluated representative samples of a product or component and determined that those samples comply with the UL-EU Mark service requirements.



GEV-EMICODE EC1 Plus

EMICODE® is a protected product classification system and at the same time an Eco label. Installation materials, adhesives and construction materials are submitted to a strict certification procedure where the quantity of emitted volatile organic compounds (VOC) is examined. When products come with the EC1 Plus certification, they can be easily adapted in the BREAAAM and LEED schemes.



M1 Certification

Various chemicals are emitted from building and interior decoration materials into indoor air. The classification presents emission requirements for the building materials, fixtures and furniture, with and without padding or textile coverings used in ordinary work spaces and residences with respect to good indoor air quality. M1 stands for low emissions.



A+ Certification

A+ is a compulsory French VOC emissions labelling of construction products installed indoors, based on emission testing. This regulation foresees that any covered product placed on the market has to be labelled with emission classes based on their emissions after 28 days, as tested with ISO 16000 and calculated for European reference room. The same holds true for EMICODE, GUT and Blue Angel. Also other valid information can be used as a basis for this assignment of class, such as tests based on ISO 16000, but with shorter testing duration.



ETA

The European Technical Assessment (ETA) is documented assessment of the performance of a construction product, in relation to its essential characteristics. This is the definition given by the Construction Products Regulation (CPR, Regulation (EU) No 305/2011), which governs the marketing of construction products in the European Economic Area. The ETA provides manufacturers with a voluntary way for CE marking their innovative non-standard construction product and thus bringing it to the European internal market. As an independent assessment, the ETA also contributes to create trust in the performance of the construction product related to its essential characteristics and taking into account its intended use(s). An ETA can be issued for construction products, if

1. they are not or not fully covered by any harmonised European Standard (hEN) and
2. the assessment methods and criteria have been laid down in a European Assessment Document (EAD).

The European Assessment Document (EAD) thus forms the basis for the European Technical Assessment. It contains the methods for assessing the product as well as specifications on the system for assessment and verification of constancy of performance (AVCP system) to be used. If the product in question is not yet (completely) covered by an existing EAD, EOTA will develop a new, or adapt an existing, European Assessment Document.

The ETA is valid in all EU Member States and those of the European Economic Area, as well as in Switzerland and Turkey. But it is also often accepted as technical documentation in other parts of the world. ETAs issued after the 1 July 2013, i.e. European Technical Assessments, are valid for an indefinite period of time.



DECLARATION OF PERFORMANCE

The ETA is the basis for a Declaration of Performance (DoP) which the manufacturer is required to draw up in accordance with the Construction Products Regulation (CPR) before CE-marking his product. The CE marking allows the manufacturer to freely market his product on the European internal market. By affixing the CE marking to the product, the manufacturer confirms that his product is in line with the applicable EU legislation and takes responsibility for the conformity of this product with the declared performance.

11. Explanation of the icons

The packaging of the Bostik Fire Protection range comes with icons that tell something about the properties of the product. Below we explain in detail what these icons mean.



EN 1366-3

Tested in accordance with EN 1366-3 / Service penetrations.



EN 1366-4

Tested in accordance with EN 1366-4 / linear joints.



EN 1366-3&4

Tested in accordance with EN 1366-3 / penetrations and EN 1366-4 / linear joints.



EC1 Plus

Tested in accordance with EMICODE EC1 PLUS.



Indoor use

The product can only be used indoor.



Outside and indoor use

The product can be used indoor and outside.



25% movement capability

The cured product is has a movement capability of 25%.



EN ISO 10140-2

Tested in accordance with EN ISO 10140-2 sound insulation.



Caulking gun

The product can be applied with standard caulking guns.



Humidity resistant

The product is resistant to humidity once fully cured.



Sealing pipes

The product is suitable for sealing service penetration gaps around pipes.



Pipe wrap sealing

The product is suitable for wrap sealing around pipes.



Electric

The product is tested for use with cables and conduits.



Gloves

Gloves are required during the application of the product.



Gungrade

The product is a gun grade foam suitable for use with PU foam guns.



Hand held

The product is a hand held foam / straw foam.

12. Technical training

End-users expect up-to-date knowledge and technical support from shop-employees. Bostik supports with training programs focusing on products and applications. We co-develop training programs with producers and resellers to combine the knowledge of paint products with knowledge on dedicated Bostik products.



Better results through Knowledge

Fire Protection is a serious market segment which deserves a dedicated approach. Bostik constantly gathers knowledge about fire protection applications upstream and downstream, from chemical supplier to end-user. The collection of this knowledge is a continuous process and provides us with the latest insights.



Centre of Excellence

In our recently built Centre of Excellence we share knowledge within the Bostik group, with our customers and with end-users. We are pleased to receive our partners and end-users to provide them with the latest knowledge and new insights. This new information enables our relations to achieve higher efficiency and better results.

Bostik professional product portfolio

The rest of the Bostik professional product portfolio you can find at bostik.com and read more about them in the product application brochures





Terms & Conditions

Bostik, S.A., its parent companies, subsidiaries and affiliated entities (collectively, "Bostik") offers this Brochure for descriptive and informational use only. The Brochure is not a contract and is not a substitute for expert or professional advice. The statements, technical information, data, and recommendations contained herein are not exhaustive, are believed to be accurate as of the date hereof, and are not warranted in any way. The Brochure relies upon your knowledge and input, and as such, its results are based solely upon the information you provide and the choices that you make. Since the conditions and methods of use of the products and the information referred to herein are beyond our control, Bostik expressly disclaims any and all liability and damages that may arise from any use of the Brochure, the products, the results therefrom, or reliance on the information contained herein, and you hereby agree to waive any and all claims against Bostik relating in any way thereto. The Brochure is one of several tools that may be used to help you find the product best suited for your needs. It is used at your own risk, and by using it, you are knowingly accepting and assuming any and all risks associated with its use, recommendations, output and your selections. You are responsible to test the suitability of any product in advance for any intended use. Bostik does not guarantee the reliability, completeness, use, or function of the Brochure or any recommendations arising therefrom. The data and information contained in the Brochure is provided 'AS IS'.

The information provided herein relates only to the specific products designated and may not be applicable when such products are used in combination with other materials or in any process. Bostik encourages you to always read and understand (1) the Technical Data Sheet ("TDS") and (2) the Safety Data Sheet ("SDS") for all products before use. The SDS contains the necessary information related to prevention and safety related to the use of a product. The SDS for our products and the TDS for our products can be found on our corporate website. You are welcome and encouraged to contact your customer service representative to discuss your specific requirements and to determine what product is appropriate for you and your applications. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE PRODUCTS DESCRIBED OR THE INFORMATION PROVIDED HEREIN, AND SUCH WARRANTIES ARE HEREBY DISCLAIMED. Additionally, Bostik disclaims any liability for direct, incidental, consequential, or special damages to the maximum extent allowed by law. Nothing contained herein constitutes a license to practice under any patent, and it should not be construed as an inducement to infringe any patent. You are advised to take appropriate steps to be sure that any proposed use of the products will not result in patent infringement. Also, please see Arkema's Medical Device Policy at <https://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>.

Acceptance of Terms & Conditions

By using this Brochure, you are hereby consenting to the above terms and conditions of use, and you agree to waive certain rights as set forth above.



Bostik Benelux B.V.
P.O.Box 194, 4900 AD Oosterhout,
The Netherlands
Phone: + 31 (0)162 491 000
E-mail: info.benelux@bostik.com
www.bostik.com