



Passive fire protection for linear joints and penetration seals

Adhesive solutions by **ARKEMA**



LINEAR JOINTS & PENETRATION SEALS



BOSTIK FIRE PROTECT:
SAVES LIVES,
LIMITS DAMAGE



ATTACHED TO YOUR WORLD

Global confidence in the innovative strength of Bostik

Bostik products are everywhere. Often as an invisible force, we are literally connected to every aspect of people's daily professional and private lives. We are connected to many industries around the world, helping you meet and overcome any challenge. Our ambition is to empower you to create whatever comes to mind. We know your goals, your world and value you as our customer.

Bostik is attached to your world.

Our ambition

Delivering innovative, quality products that can empower you as an individual or a company to create what you envision.

Offering solutions that enable you to realise ideas that help shape our world. A world where everyone is constantly challenged, every day.

We want to understand your needs and translate them into appropriate products and solutions.

Prioritise more sustainable products and solutions for everyone.



THEREFORE BOSTIK FIRE PROTECT

Bostik Fire Protect is a complete, fully certified and approved range of passive fire protection products for movement joints, connection joints, openings around cable and pipe penetrations between fire compartments.

Passive fire protection products are the primary means during a fire to limit the spread of flames, heat and smoke in a building and substantially increase fire safety. When applied correctly, these products meet the legal basic requirements for compartmentation. They contribute to the structural stability of a building and give people time to safely exit a building or evacuate the building.

- Passive fire safety:**
- Saves lives
 - Limits loss through property damage
 - Minimises business damage
 - Protects the building, making it accessible after the fire

- 0% worry about claims in the event of fire and damage:**
- Prevents claims
 - Contributes to 100% BREEAM certification
 - Provides clear and complete certification

- 100% certainty thanks to correct use:**
- Ensures application-focused certification
 - Provides clear and complete advice

<https://www.bostik.com/global/en/bostik-academy/library/product-portfolio/passive-fire-protection/>

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BOSTIK FIRE PROTECT: HIGHLY CERTIFIED SYSTEM

1. INTRODUCTION

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

Passive fire safety in both new buildings and renovation is becoming increasingly important. Bostik has extensive experience in developing certified solutions for linear joints (EN 1366-4).

In addition to solutions for linear joints as well as solutions for openings and penetrations (EN 1366-3). This range offers efficient solutions with the latest technologies. All products and applications are fully tested and certified according to the applicable European standards.

Fire behaviour and fire resistance

Fire behaviour is very different from fire resistance. Both are strictly regulated within national and international standards.

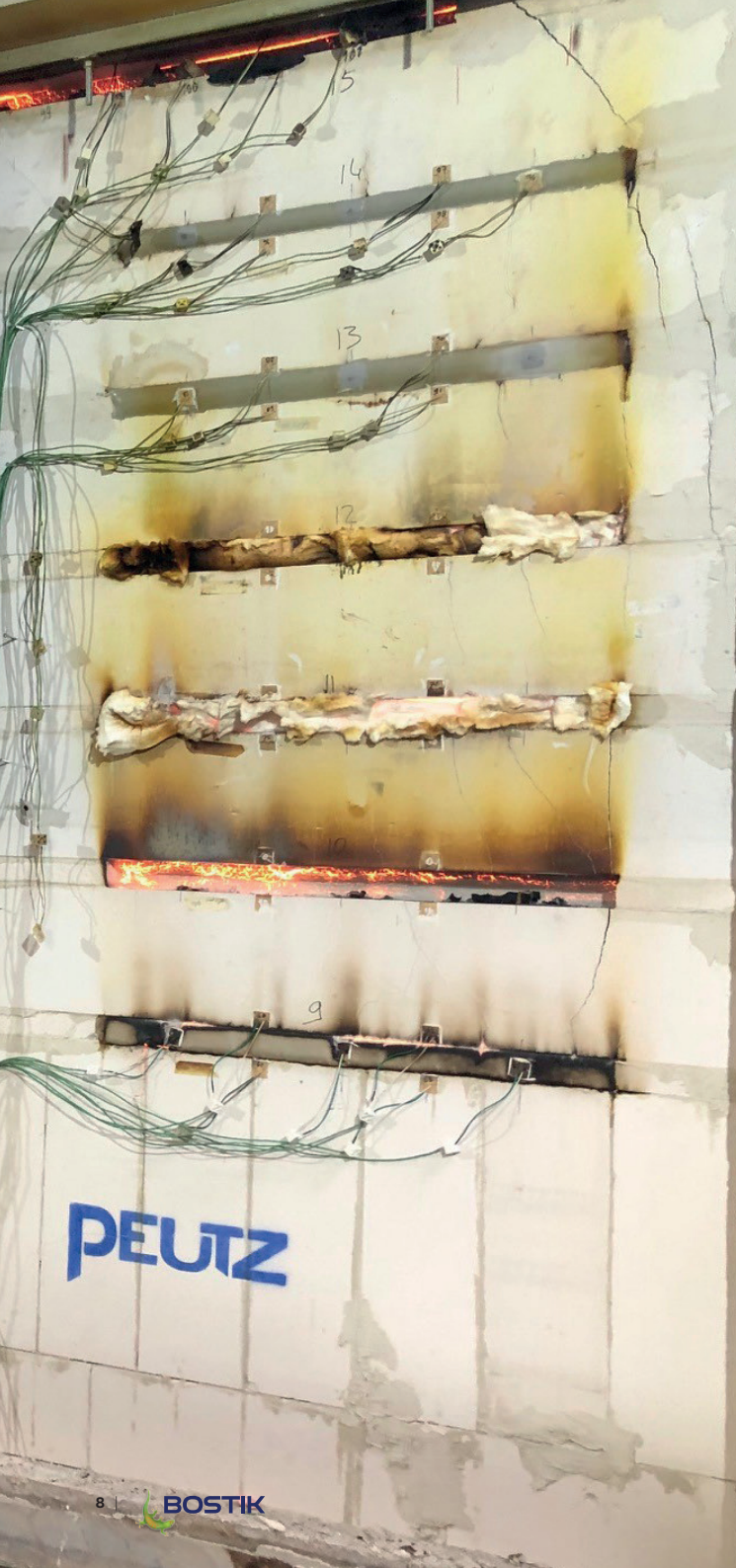
Fire behaviour indicates how flammable/combustible a material is and to what extent it contributes to the development of a fire. Well-known standards for fire behaviour are the German standard DIN 4102 part 1, with classifications A1, A2, B1, B2 and B3 and the European standard EN 13501-1, with classifications A1, A2, B, C, D, E and F to determine flammability and additional classification s1, s2, s3 for smoke development, and d0, d1 and d2 for burning droplets and particles.

Fire resistance is the time in minutes in which a fire compartment can fulfil its role and prevent fire from spreading further. This fire resistance of (combined) products is tested and measured in standardised, common applications. This means that a product with the highest classification for fire behaviour does not yet guarantee fire resistance.

In this brochure you will find all essential application information and an overview of the solutions to meet fire resistance requirements.

Consult the Fire Protect website for all current certifications.





2. LINEAR JOINTS (EN 1366-4)

A fire compartment consists of fire-resistant walls and floors. A compartment is built with a good fire-resistant seal of the joints between these walls and floors. In addition, the joints between the structure and the (fire) doors and (window) frames must be fire-resistant.

Products and systems tested according to EN 1366-4 are used to fully seal fire compartments where walls, window frames and floors meet. Most of these products and systems are designed to accommodate movements in building components.

Fire tests

The fire resistance of a product indicates how long it can withstand fire. During a fire test for linear joint seals, several seals with a minimum length of 900 mm are placed in an oven-sized support structure, 4 m wide and 3 m high. In the oven, the temperature is controlled according to the standard heating curve with gas burners. A temperature of more than 800°C is reached after 30 minutes and almost 1000°C after an hour. During the fire test, the linear joint seals are checked visually and electronically to determine that no errors occur in the performance criteria such as temperature and integrity.

The fire resistance of Bostik solutions for sealing linear joints is in accordance with European standard 1366-4 and has been tested by the Peutz laboratory (registered testing agency) tested on various surfaces and joint widths.

The results of these tests are summarised in classification reports. The products can be used individually, but various combinations of products have also been tested. As a result, we offer an efficient solution for every situation an efficient solution. Our range was tested in the same laboratory also tested for fire behaviour, smoke control and sound insulation properties.

Peutz laboratory for fire Safety - independent type tests



Peutz advises on fire safety provisions in the areas of escape, smoke and fire compartmentation, controllability of fire and smoke control. The organisation has its own fire safety laboratory, advanced measurement facilities and calculation programmes, which allow products used for fire-resistant linear joint seals to be extensively tested in accordance with EN 1366-4.

The Dutch Accreditation Council (RvA) has accredited the laboratory to EN-ISO/IEC 17025 (L505) and the Dutch government has recognised it as a registered testing agency (NB2264). The laboratory's accreditation and notification guarantees 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 can be used.

3. PENETRATION SEALS (EN 1366-3)

A fire compartment consists of fire-resistant walls and floors. These walls and floors have openings where pipes and electrical cables are routed along them. A fire compartment is complete until these openings are also safely sealed with the right materials. Products and systems tested according to EN1366-3 guarantee that compartments are sufficiently fire-resistant, despite openings for electrical cables and mechanical installations.

Modern buildings are full of pipes, cables and wires. Where these pipes pass through the fireproofing elements of the building, a weak point in the fire protection of that building is created.

These penetrations must be properly sealed to maintain the fire resistance of the buildings. There are many factors involved in finding the right solution for sealing penetrations. Each pipe passing through fire-resistant building elements reacts differently in the event of a fire. This means that a different solution or product must be used for effective protection in each situation.

The fire-resistant properties of Bostik solutions have been tested by recognised organisations in accordance with international standards. The results of these tests are summarised in certificates. All our products and their extensive field of application have a CE marking and an ETA (European Technical Assessment). The products can be used individually or in tested and certified combinations. This allows us to offer a solution for almost any situation.



4. ECO-LABELS AND CERTIFICATIONS

WHAT BOSTIK FIRE PROTECT COMPLIES WITH

CE classification (Europe)

Globalisation and harmonisation are common and familiar terms. The same applies to construction standards, -standards and regulations. Within Bostik, we embrace this development and strive for a global standard that results in transparency and simplicity in the field of sealing and bonding.



UL-EU

The UL-EU mark is a voluntary pan-European certification mark from Underwriters Laboratories for all products for which an EN standard exists. The UL-EU mark is intended for use on products intended for the European market. This means that UL has assessed representative samples of a product or component and determined that these samples meet the service requirements of the UL-EU mark.



EMICODE® EC1^{PLUS}

EC1^{PLUS} is part of the 'Emicode® classification system'. This classification system has now grown into the most important national and international national quality benchmark for a wide range of product groups. Emicode® EC1^{PLUS} provides insight into which materials offer maximum safety against indoor air pollution, and which materials guarantee the best health protection and highest environmental friendliness. The products with Emicode® EC1^{PLUS} contribute to a healthy and comfortable climate in your home for years to come.



ISEGA Certification

ISEGA stands for 'Industrie-, Studien- und Entwicklungsgesellschaft'. ISEGA is a German testing institute that, according to EU rules, analyses products for their suitability to come into contact with foods. Products with an ISEGA quality mark are important for food and related companies, which have to work according to HACCP guidelines. operate. These products have been tested to avoid - during preparation, processing, handling, packaging and distribution of foodstuffs - to come into contact. This minimises the chance of contamination during the production process. ISEGA-certified products prevent contamination with harmful substances and contribute to healthy living.



Emission classification of Building Materials (M1)

The aim of the classification is the development and use of low-emission building materials so that material emissions do not increase the need for ventilation. The classification includes requirements for materials used in ordinary workplaces and dwellings. There is a separate cleanliness classification for air handling components.



Eurofins Indoor Air Comfort GOLD

Eurofins Indoor Air Comfort GOLD
The 'Eurofins Indoor Air Comfort GOLD' certification is the best guarantee that a product meets the requirements for low product emissions. It is also a sign that a brand contributes to quality and to a healthier indoor environment. The GOLD- certification indicates that the emissions of the product meets the highest sustainable building requirements in its class.



Products with this certificate are accepted in sustainable building concepts such as BREEAM and LEED.

French A+ VOC

A+ French VOC stands for 'Émission dans l'air intérieur A+'. Since 2012, all construction, decoration and furnishing products in France must have an emission classification and label. This label provides information on the emission of volatile organic compounds into indoor air. The regulation applies to walls, ceilings, floor coverings and coatings, panels for partitions and suspended ceilings, insulation products, doors and windows and related installation products. A+ French VOC contributes to improving indoor air quality and to a healthier indoor climate.



ETA

European Technical Assessment (ETA) is a documented assessment of the performance of a construction product with respect to its essential characteristics. This is the definition given in the Construction Products Regulation (EU Regulation 305/2011), which regulates the marketing of construction products in the European Economic Area. ETA provides a voluntary way for manufacturers to CE mark their innovative non-standard construction products. As an independent assessment, the ETA also contributes to confidence in the performance of the construction product that is taken into account the intended use.



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

ETA is valid in all EU and European Economic Area member states, as well as in Switzerland and Türkiye. It is also commonly accepted as technical documentation in other parts of the world.

ETAs issued after 1 July 2013 are valid for an
valid indefinitely.

Performance declaration

The ETA is the basis for a Declaration of Performance (a DoP, a declaration of performance) which the manufacturer must prepare in accordance with the Construction Products Regulation (CPR; Construction Products Regulation) before the product receives CE marking. With CE marking, the manufacturer can freely trade his product on the European internal market. By affixing the CE marking to the product, the manufacturer that the product complies with applicable EU legislation and assumes responsibility for the conformity of this product with its declared performance.





5. BOSTIK FIRE PROTECT PORTFOLIO

PORTFOLIO FOR LINEAR JOINTS:

- BOSTIK FP401 FIRESEAL ACRYLIC
- BOSTIK FP402 FIRESEAL SILICONE
- BOSTIK FP403 FIRESEAL HYBRID
- BOSTIK FP404 FIRE RETARDANT PU FOAM
- BOSTIK FP404 FIRE RETARDANT PU GUNFOAM

PORTFOLIO FOR PENETRATION SEALS:

- BOSTIK FP310 INTUMESCENT ACOUSTIC ACRYLIC
- BOSTIK FP311 INTUMESCENT GRAPHITE
- BOSTIK FP312 FIRE RETARDANT COATING
- BOSTIK FP320 FIRE BATT
- BOSTIK FP330 PIPE COLLAR
- BOSTIK FP340 PIPE WRAP
- BOSTIK FP350 GRAPHITE PLATE
- BOSTIK FP360 PUTTY CORD
- BOSTIK FP370 FIRESEAL MORTAR





5.1 PORTFOLIO FOR LINEAR JOINTS (EN 1366-4)

1



**BOSTIK FP401
FIRESEAL ACRYLIC
1-component fire-resistant
acrylic sealant**

- Minimum wall thickness 70 mm
- Maximum joint width 40 mm
- Fire resistance up to 4 hours
- Tested for sound insulation and smoke leakage

2



**BOSTIK FP402
FIRESEAL SILICONE
Fire resistant neutral
curing silicone sealant**

- Minimum wall thickness 100 mm
- ISEGA certified (safe in case of food contact)
- Fire resistance up to 4 hours
- Tested for sound insulation and smoke leakage

3



**BOSTIK FP403
FIRESEAL HYBRID
Fire-resistant MS polymer sealant**

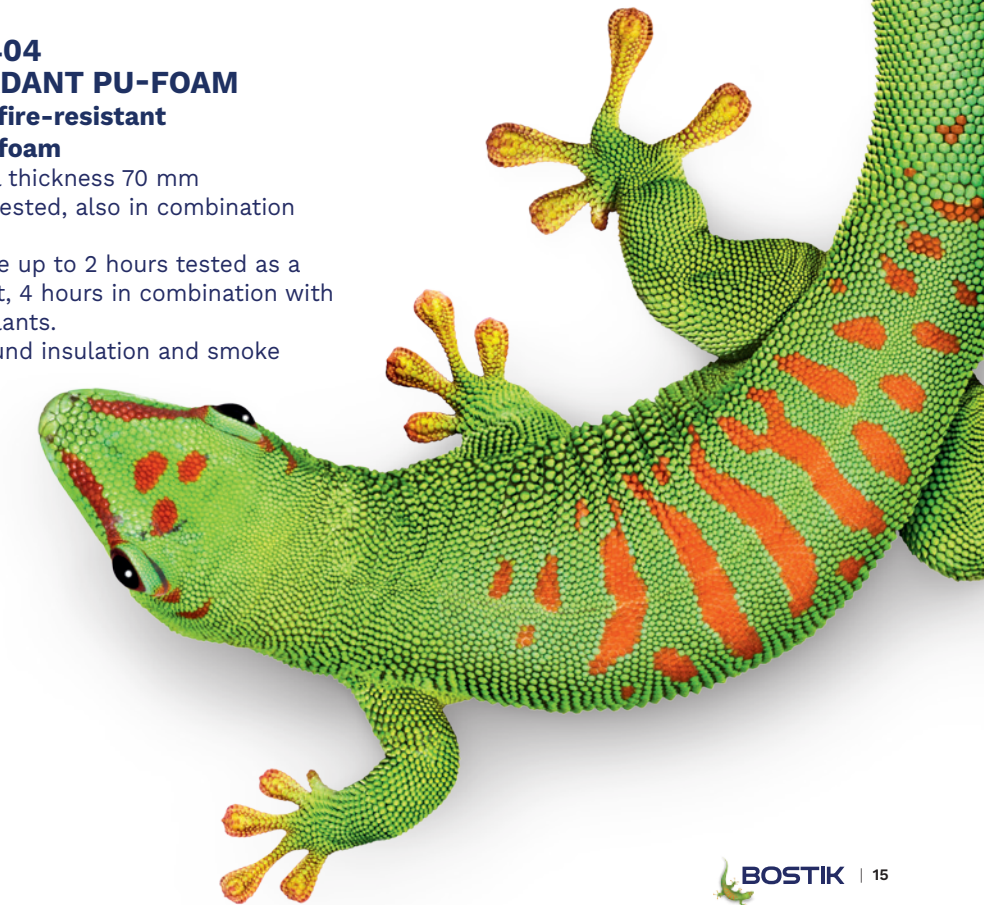
- Minimum wall thickness 70 mm
- Fire resistance up to 4 hours
- Tested for sound insulation and smoke leakage

4



**BOSTIK FP404
FIRE RETARDANT PU-FOAM
1-component fire-resistant
polyurethane foam**

- Minimum wall thickness 70 mm
- Very broadly tested, also in combination with sealant
- Fire resistance up to 2 hours tested as a single product, 4 hours in combination with Bostik FP sealants.
- Tested for sound insulation and smoke leakage





- Minimum wall thickness 70 mm
- Maximum joint width 40 mm
- Fire resistance up to 4 hours
- Tested for sound insulation and smoke leakage

BOSTIK FP401 FIRESEAL ACRYLIC

1-COMPONENT FIRE-RESISTANT ACRYLIC SEALANT

BOSTIK FP401 Fireseal Acrylic is a plasto-elastic sealant. It is suitable for fire-resistant sealing of linear joints in gypsum and stony substrates for up to 4 hours.

Fire resistance tested in accordance with EN 1366-4.

CE certification for fire resistance in accordance with ETA:
EN 15651-1: 2012 F-EXT-INT 7.5P
ETA-20/1250
UL-EU certified
UAE Civil Defense approved

Product features

- Can be used separately and in combination with FP404 Fire Retardant PU (Gun)Foam in joints up to 40 mm wide
- Can be applied in both vertical and horizontal joints
- Also certified for joints in metal-stud walls
- Excellent application and easy to finish
- Paintable with most types of water-based and synthetic paints
- Excellent sound insulation
- Tested for smoke leakage (S_a and S₂₀₀)
- Can be applied single-sided



Article number	EAN code	Colour	Packaging	Packed by
30612846	87113572041365	white	cartridge 310 ml	12 pieces per box
30620687	8711595220521	grey	cartridge 310 ml	12 pieces per box
30623503	8711595225120	white	sausage 600 ml	12 pieces per box
30623622	8711595225144	grey	sausage 600 ml	12 pieces per box



- Minimum wall thickness 100 mm
- ISEGA certified (safe in case of food contact)
- Fire resistance up to 4 hours
- Tested for sound insulation and smoke leakage

BOSTIK FP402 FIRESEAL SILICONE

FIRE-RESISTANT NEUTRAL-CURING SILICONE SEALANT

BOSTIK FP402 Fireseal Silicone is specially developed for fire-resistant sealing of connection and movement joints in structures. Prevents the spread of fire, smoke or toxic fumes.

The fire resistance of this product has been tested in accordance with EN 1366-4 up to 240 minutes and for joints up to 50 mm wide.

CE certification for fire resistance according to ETA:
EN 15651-1: F-EXT-INT-CC 25LM
EN 15651-2: G-CC 25LM
ETA-20/1249
UL-EU certified
UAE Civil Defense approved

Product features

- Can be used separately and in combination with FP404 Fire Retardant PU (Gun)Foam in joints up to 50 mm wide
- Excellent processing, does not sag
- UV-, water- and weather-resistant
- Also suitable for outdoor applications
- Not paintable
- Tested for smoke leakage (S_a and S₂₀₀)
- Can be applied single-sided



Article number	EAN code	Colour	Packaging	Packed by
30622931	8711595221399	white	cartridge 310 ml	12 pieces per box
30622929	8711595221412	grey	cartridge 310 ml	12 pieces per box
30622990	8711595221436	black	cartridge 310 ml	12 pieces per box
30622930	8711595221450	white	sausage 600 ml	12 pieces per box
30622928	8711595221474	grey	sausage 600 ml	12 pieces per box
30622989	8711595221498	black	sausage 600 ml	12 pieces per box



- Minimum wall thickness 70 mm
- Fire resistance up to 4 hours
- Tested for sound insulation and smoke leakage

BOSTIK FP403 FIRESEAL HYBRID

FIRE-RESISTANT MS POLYMER SEALANT

BOSTIK FP403 Fireseal Hybrid is specially developed for fire-resistant sealing of connection and expansion joints to prevent the spread of fire, smoke and toxic fumes. The product is certified for use on all types of horizontal joints, connection joints, wooden and steel window frames, stony substrates and all metal-stud applications.

Fire resistance has been tested in accordance with EN 1366-4 up to 240 minutes and joints up to 60 mm wide.

CE certificering voor brandwering volgens ETA:
EN 15651-1: F-EXT-INT-CC 25HM
EN 15651-2: G-CC 25HM
ETA-20/1119
UL-EU certified
UAE Civil Defense approved

Product features

- Suitable for wall/ceiling and wall/floor connections
- Certified for steel and wooden window frames
- Certified for metal-stud joints
- Excellent application and easy processability
- Movement absorption up to 25%
- Paintable with most types of water-based and synthetic paints
- Minimal shrinkage
- UV, water and weather resistant
- Tested for smoke leakage (S_a and S₂₀₀)
- Can be applied single-sided



Article number	EAN code	Colour	Packaging	Packed by
30612887	8713572041419	white	cartridge 290 ml	12 pieces per box
30612851	8713572041402	grey	cartridge 290 ml	12 pieces per box
30620686	8711595220545	white	sausage 600 ml	12 pieces per box
30620668	8711595220569	grey	sausage 600 ml	12 pieces per box



- Minimum wall thickness 70 mm
- Very broadly tested, also in combination with sealants
- Fire resistance up to 2 hours tested as a single product, 4 hours in combination with Bostik FP sealants
- Tested for sound insulation and smoke leakage

BOSTIK FP404 FIRE RETARDANT PU FOAM

1-COMPONENT FIRE-RESISTANT POLYURETHANE FOAM

BOSTIK FP404 Fire Retardant PU Foam is fire resistant up to 240 minutes. Maximum joint width 40 mm. Bostik FP404 Fire Retardant PU Foam is easy to use in walls from 70 mm and floors from 100 mm. Also suitable for concrete stairs. Suitable for stone-stone and stone-wood combination joints.

Available in PU-GunFoam and hand-held.

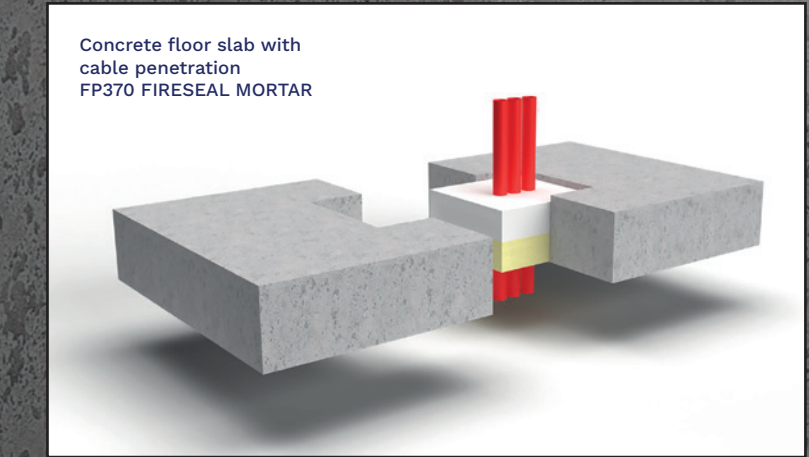
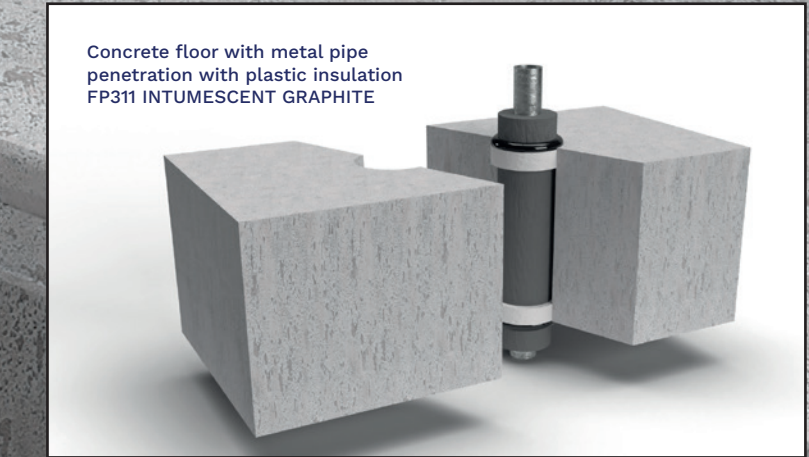
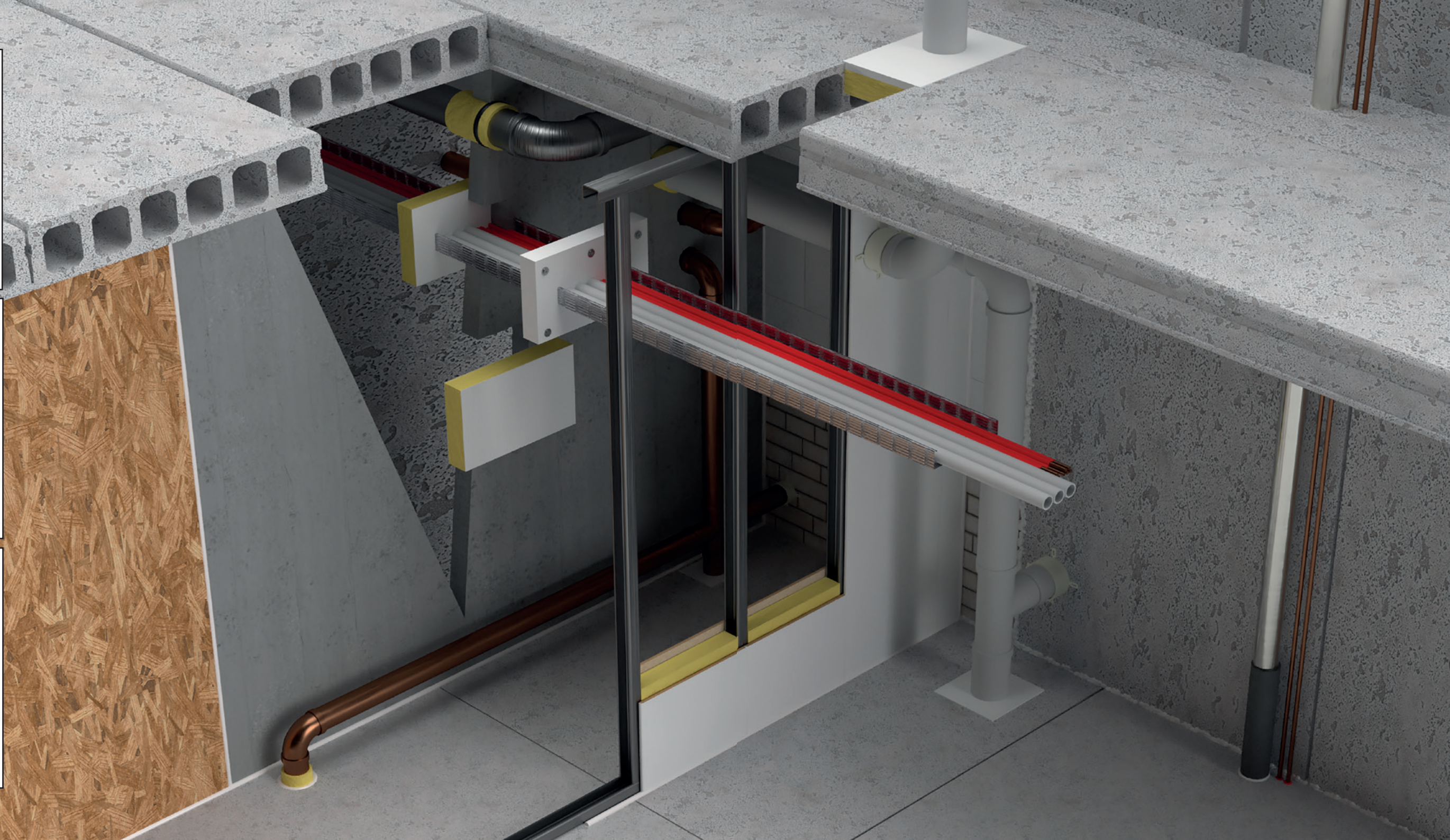
CE certification for fire protection according to ETA:
ETA-20/1118
UL-EU certified
UAE Civil Defense approved

Product features

- If applied separately, up to 2 hours fire resistance, combined with other Bostik Fire Protect products up to 4 hours
- Certified for wall/floor and wall/ceiling connections
- Also certified for wooden window frames
- Easy to apply with adapter
- Easy and fast application
- Adhesive-free after 10 to 12 minutes
- Excellent sound insulation
- Tested for smoke leakage (S_a and S₂₀₀)



Article number	EAN code	Colour	Packaging	Packed by
30612888	8713572041433	pink	cannister handheld 750 ml	12 pieces per box
30612850	8713572041426	pink	cannister gunfoam 750 ml	12 pieces per box



5.2 LINEAIR JOINTS PRODUCT SELECTOR (EN 1366-4)

STONE TO STONE WALL ≥ 70 MM

Orientation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			5-10	EI	45	FP401	FP401 non-fire side	EI 45 – V – X – F – W 5 to 10	ETA-20/1250	5
vertical		X			5-10	EI	60	FP403	FP403 non-fire side	EI 60 – V – X – F – W 5 to 10	ETA-20/1119	5
vertical		X			8-10	EI	30	FP404	FP404 fully filled	EI 30 – V – X – F – W 8 to 10	ETA-20/1118	5
vertical		X			5-20	E	240	FP401	FP401 non-fire side	E 240 – V – X – F – W 5 to 20	ETA-20/1250	5
vertical		X			5-20	E	240	FP403	FP403 non-fire side	E 240 – V – X – F – W 5 to 20	ETA-20/1119	5
vertical		X			8-20	EI	45	FP401 & FP404	FP401 fire side, FP404 non-fire side	EI 45 – V – X – F – W 8 to 20	ETA-20/1250, 20/1118	5, 10
vertical		X			8-20	E	240	FP401 & FP404	FP401 fire side, FP404 non-fire side	E 240 – V – X – F – W 8 to 20	ETA-20/1250, 20/1118	5, 10
vertical		X			10-20	EI	20	FP404	FP404 fully filled	EI 20 – V – X – F – W 10 to 20	ETA-20/1118	5
vertical		X			10-20	EI	30	FP401	FP401 non-fire side	EI 30 – V – X – F – W 10 to 20	ETA-20/1250	5
vertical		X			10-20	EI	45	FP403	FP403 non-fire side	EI 45 – V – X – F – W 10 to 20	ETA-20/1119	5
horizontal	≥ 100 mm	X	X		8-15	EI	45	FP404	FP404 fully filled	EI 45 – T – X – F – W 8 to 15	ETA-20/1118	7
horizontal	≥ 150 mm	X	X		8-19	EI	30	FP404	FP404 fully filled	EI 30 – T – X – F – W 8 to 19	*	*
horizontal	≥ 150 mm	X	X		8-19	EI	60	FP401 & FP404	FP401 fire side 1mm, FP404 non-fire side	EI 60 – T – X – F – W 8 to 19	*	*

* Before application, consult the ETA and installation instructions to ensure that the intended fire resistance is achieved.

STONE TO STONE WALL ≥ 100 MM

Orientation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			5-10	EI	180	FP401	FP401 both sides	EI 180 – V – X – F – W 5 to 10	ETA-20/1250	6
vertical		X			8-10	EI	90	FP404	FP404 fully filled	EI 90 – V – X – F – W 8 to 10	ETA-20/1118	5
vertical		X			8-30	EI	90	FP401 & FP404	FP401 fire side, FP404 non-fire side	EI 90 – V – X – F – W 8 to 30	ETA-20/1250, 20/1118	6, 10
vertical		X			8-30	E	120	FP401 & FP404	FP401 fire side, FP404 non-fire side	E 120 – V – X – F – W 8 to 30	ETA-20/1250, 20/1118	6, 10
vertical		X			10-30	EI	45	FP404	FP404 volledig gevuld	EI 45 – V – X – F – W 10 to 30	ETA-20/1118	5
vertical		X			5-40	EI	30	FP402	FP402 fire side	EI 30 – V – X – F – W 5 to 40	ETA-20/1249	5
vertical		X			5-40	EI	60	FP402	FP402 non-fire side	EI 60 – V – X – F – W 5 to 40	ETA-20/1249	5
vertical		X			5-40	EI	60	FP403	FP403 fire side	EI 60 – V – X – F – W 5 to 40	ETA-20/1119	6
vertical		X			5-40	EI	60	FP403	FP403 non-fire side	EI 60 – V – X – F – W 5 to 40	ETA-20/1119	6
vertical		X			5-40	EI	180	FP401	FP401 fire side	EI 180 – V – X – F – W 5 to 40	ETA-20/1250	6
vertical		X			5-40	E	120	FP403	FP403 fire side	E 120 – V – X – F – W 5 to 40	ETA-20/1119	6
vertical		X			5-40	E	240	FP401	FP401 both sides	E 240 – V – X – F – W 5 to 40	ETA-20/1250	6
vertical		X			5-40	E	240	FP402	FP402 non-fire side	E 240 – V – X – F – W 5 to 40	ETA-20/1249	5
vertical		X			5-40	E	240	FP403	FP403 non-fire side	E 240 – V – X – F – W 5 to 40	ETA-20/1119	6
vertical		X			8-40	EI	45	FP403 & FP404	FP403 fire side, FP404 non-fire side	EI 45 – V – X – F – W 8 to 40	ETA-20/1119, 20/1118	6, 10
vertical		X			8-40	E	120	FP403 & FP404	FP403 fire side, FP404 non-fire side	E 120 – V – X – F – W 8 to 40	ETA-20/1119, 20/1118	6, 10
vertical		X			10-40	EI	240	FP401	FP401 both sides	EI 240 – V – X – F – W 10 to 40	ETA-20/1250	6
vertical		X			30-40	EI	30	FP401 & FP404	FP401 fire side, FP404 non-fire side	EI 30 – V – X – F – W 30 to 40	ETA-20/1250, 20/1118	6, 10
vertical		X			5-50	EI	180	FP402	FP402 both sides	EI 180 – V – X – F – W 5 to 50	ETA-20/1249	5
vertical		X			5-50	E	240	FP402	FP402 both sides	E 240 – V – X – F – W 5 to 50	ETA-20/1249	5
vertical		X			10-50	EI	240	FP403	FP403 both sides	EI 240 – V – X – F – W 5 to 50	ETA-20/1119	6
vertical		X			5-60	E	240	FP403	FP403 both sides	E 240 – V – X – F – W 5 to 60	ETA-20/1119	6
vertical		X			50-60	EI	180	FP403	FP403 beide zijden	EI 180 – V – X – F – W 50 to 60	ETA-20/1119	6
horizontal	≥ 100 mm		X		8	EI	60	FP404	FP404 volledig gevuld	EI 60 – T – X – F – W 8	ETA-20/1118	7
horizontal	≥ 100 mm		X		10	EI	90	FP402	FP402 fire side	EI 90 – T – X – F – W 10	ETA-20/1249	8
horizontal	≥ 100 mm		X		10	EI	90	FP403	FP403 fire side	EI 90 – T – X – F – W 10	ETA-20/1119	10
horizontal	≥ 100 mm		X		10	EI	120	FP402	FP402 non-fire side	EI 120 – T – X – F – W 10	ETA-20/1249	9
horizontal	≥ 100 mm		X		10	EI	120	FP403	FP403 non-fire side	EI 120 – T – X – F – W 10	ETA-20/1119	10
horizontal	≥ 100 mm		X		10	E	120	FP402	FP402 fire side	E 120 – T – X – F – W 10	ETA-20/1249	8
horizontal	≥ 150 mm	X	X		8-15	EI	120	FP401 & FP404	FP401 fire side 1mm, FP404 non-fire side	EI 120 – T – X – F – W 8-15	*	*

* Before application, consult the ETA and installation instructions to ensure that the intended fire resistance is achieved.

STONE TO STONE WALL ≥ 100 MM

Orientation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint width	E/EI	Minutes	Product	Application	Classification	ETA	page
horizontal	≥ 100 mm		X		8-20	EI	45	FP404	FP404 fully filled	EI 45 – T – X – F – W 8 to 20	ETA-20/1118	7
horizontal	≥ 150 mm	X	X		8-20	EI	60	FP404	FP404 fully filled	EI 60 – T – X – F – W 8 to 20	*	*
horizontal	≥ 100 mm		X		10-25	EI	30	FP402	FP402 fire side	EI 30 – T – X – F – W 10 to 25	ETA-20/1249	8
horizontal	≥ 100 mm		X		10-25	EI	90	FP402	FP402 non-fire side	EI 90 – T – X – F – W 10 to 25	ETA-20/1249	9
horizontal	≥ 100 mm		X		10-25	E	60	FP402	FP402 fire side	E 60 – T – X – F – W 10 to 25	ETA-20/1249	8
horizontal	≥ 100 mm		X		10-25	E	120	FP403	FP403 non-fire side	E 120 – T – X – F – W 10 to 25	ETA-20/1119	10
horizontal	unspecified	X	X	5	10-30	EI	180	FP401	FP401 both sides	EI 180 – T – M 5 – F – W 10 to 30	ETA-20/1250	8
horizontal	≥ 100 mm	X	X	25	10-30	EI	240	FP403	FP403 both sides	EI 240 – T – M 25 – F – W 10 to 30	ETA-20/1119	9
horizontal	unspecified	X	X	5	10-30	E	240	FP401	FP401 both sides	E 240 – T – M 5 – F – W 10 to 30	ETA-20/1250	8
horizontal	≥ 150 mm	X	X		15-30	EI	60	FP401 & FP404	FP401 fire side 1mm, FP404 non-fire side	EI 60 – T – X – F – W 15-30	*	*
horizontal	≥ 100 mm		X		20-30	EI	30	FP404	FP404 fully filled	EI 30 – T – X – F – W 20 to 30	ETA-20/1118	7
horizontal	≥ 100 mm		X		10-40	EI	30	FP403	FP403 fire side	EI 30 – T – X – F – W 10 to 40	ETA-20/1119	10
horizontal	≥ 100 mm		X		10-40	EI	60	FP403	FP403 non-fire side	EI 60 – T – X – F – W 10 to 40	ETA-20/1119	10
horizontal	≥ 100 mm		X		10-40	E	120	FP402	FP402 non-fire side	E 120 – T – X – F – W 10 to 40	ETA-20/1249	9
horizontal	≥ 100 mm		X		10-40	E	120	FP403	FP403 fire side	E 120 – T – X – F – W 10 to 40	ETA-20/1119	10
horizontal	≥ 100 mm	X	X	25	10-40	E	240	FP403	FP403 both sides	E 240 – T – M 25 – F – W 10 to 40	ETA-20/1119	9
horizontal	≥ 100 mm		X		25-40	EI	20	FP402	FP402 fire side	EI 20 – T – X – F – W 25 to 40	ETA-20/1249	8
horizontal	≥ 100 mm		X		25-40	EI	45	FP402	FP402 non-fire side	EI 45 – T – X – F – W 25 to 40	ETA-20/1249	9
horizontal	≥ 100 mm		X		30-40	EI	20	FP404	FP404 fully filled	EI 20 – T – X – F – W 30 to 40	ETA-20/1118	7
horizontal	≥ 100 mm	X	X	25	30-40	EI	180	FP403	FP403 both sides	EI 180 – T – M 25 – F – W 30 to 40	ETA-20/1119	9
horizontal	≥ 100 mm		X		40	E	60	FP403	FP403 non-fire side	E 60 – T – X – F – W 40	ETA-20/1119	10
horizontal		X			5-50	EI	30	FP402	FP402 fire side	EI 30 – T – X – F – W 5 to 50	ETA-20/1249	5
horizontal	≥ 150 mm	X	X		5-50	EI	30	FP403	FP403 fire side	EI 30 – T – X – F – W 5 to 50	ETA-20/1119	11
horizontal		X			5-50	EI	60	FP402	FP402 non-fire side	EI 60 – T – X – F – W 5 to 50	ETA-20/1249	5
horizontal		X			5-50	EI	90	FP403	FP403 non-fire side	EI 90 – T – X – F – W 5 to 50	ETA-20/1119	6
horizontal		X			5-50	EI	120	FP403	FP403 fire side	EI 120 – T – X – F – W 5 to 50	ETA-20/1119	6
horizontal		X			5-50	EI	180	FP402	FP402 both sides	EI 180 – T – X – F – W 5 to 50	ETA-20/1249	5
horizontal	≥ 100 mm		X		5-50	EI	240	FP402	FP402 both sides	EI 240 – T – X – F – W 5 to 50	ETA-20/1249	9
horizontal	≥ 150 mm	X	X		5-50	EI	240	FP403	FP403 both sides	EI 240 – T – X – F – W 5 to 50	ETA-20/1119	11
horizontal		X			5-50	E	180	FP403	FP403 fire side	E 180 – T – X – F – W 5 to 50	ETA-20/1119	6

* Before application, consult the ETA and installation instructions to ensure that the intended fire resistance is achieved.

STONE TO STONE WALL ≥ 100 MM

Orientation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint width	E/EI	Minutes	Product	Application	Classification	ETA	page
horizontal	≥ 150 mm	X	X		5-50	E	180	FP403	FP403 fire side	E 180 – T – X – F – W 5 tot 50	ETA-20/1119	11
horizontal	≥ 150 mm	X	X		5-50	E	240	FP402	FP402 both sides	E 240 – T – X – F – W 5 tot 50	ETA-20/1249	9
horizontal		X			5-50	E	240	FP403	FP403 non-fire side	E 240 – T – X – F – W 5 tot 50	ETA-20/1119	6

STONE TO STONE WALL ≥ 115 MM

Orientation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			5	EI	180	FP403	FP403 non-fire side	EI 180 – V – X – F – W 5	ETA-20/1119	7
vertical		X			5	EI	240	FP401	FP401 non-fire side	EI 240 – V – X – F – W 5	ETA-20/1250	7
vertical		X			5	EI	240	FP402	FP402 non-fire side	EI 240 – V – X – F – W 5	ETA-20/1249	6
vertical		X			8	EI	120	FP404	FP404 fully filled	EI 120 – V – X – F – W 8	ETA-20/1118	5
vertical		X			8	EI	240	FP401 & FP404	FP401 non-fire side, FP404 fire side	EI 240 – V – X – F – W 8	ETA-20/1250, 20/1118	7, 8
vertical		X			8	EI	240	FP402 & FP404	FP402 non-fire side, FP404 fire side	EI 240 – V – X – F – W 8	ETA-20/1249, 20/1118	6, 8
vertical		X			8	EI	240	FP403 & FP404	FP403 non-fire side, FP404 fire side	EI 240 – V – X – F – W 8	ETA-20/1119, 20/1118	7, 8
vertical		X			5-20	EI	45	FP401	FP401 non-fire side	EI 45 – V – X – F – W 5 tot 20	ETA-20/1250	7
vertical		X			5-20	EI	60	FP403	FP403 non-fire side	EI 60 – V – X – F – W 5 tot 20	ETA-20/1119	7
vertical		X			5-20	E	240	FP401	FP401 non-fire side	E 240 – V – X – F – W 5 tot 20	ETA-20/1250	7
vertical		X			5-20	E	240	FP403	FP403 non-fire side	E 240 – V – X – F – W 5 tot 20	ETA-20/1119	7
vertical		X			8-20	EI	60	FP404	FP404 fully filled	EI 60 – V – X – F – W 8 tot 20	ETA-20/1118	5
vertical		X			5-25	EI	60	FP402	FP402 non-fire side	EI 60 – V – X – F – W 5 tot 25	ETA-20/1249	6
vertical		X			5-25	E	240	FP402	FP402 non-fire side	E 240 – V – X – F – W 5 tot 25	ETA-20/1249	6
vertical		X			8-25	EI	180	FP403 & FP404	FP403 non-fire side, FP404 fire side	EI 180 – V – X – F – W 8 tot 25	ETA-20/1119, 20/1118	7, 8
vertical		X			8-25	E	240	FP403 & FP404	FP403 non-fire side, FP404 fire side	E 240 – V – X – F – W 8 tot 25	ETA-20/1119, 20/1118	7, 8
vertical		X			5-30	EI	240	FP403	FP403 both sides	EI 240 – V – X – F – W 5 tot 30	ETA-20/1119	7
vertical		X			5-30	E	240	FP403	FP403 both sides	E 240 – V – X – F – W 5 tot 30	ETA-20/1119	7
vertical		X			8-30	EI	180	FP401 & FP404	FP401 non-fire side, FP404 fire side	EI 180 – V – X – F – W 8 tot 30	ETA-20/1250, 20/1118	7, 8
vertical		X			8-30	E	240	FP401 & FP404	FP401 non-fire side, FP404 fire side	E 240 – V – X – F – W 8 tot 30	ETA-20/1250, 20/1118	7, 8
vertical		X			20-30	EI	45	FP404	FP404 fully filled	EI 45 – V – X – F – W 20 tot 30	ETA-20/1118	5
vertical		X			8-40	EI	180	FP402 & FP404	FP402 non-fire side, FP404 fire side	EI 180 – V – X – F – W 8 tot 40	ETA-20/1249, 20/1118	6, 8
vertical		X			8-40	E	240	FP402 & FP404	FP402 non-fire side, FP404 fire side	E 240 – V – X – F – W 8 tot 40	ETA-20/1249, 20/1118	6, 8

* Before application, consult the ETA and installation instructions to ensure that the intended fire resistance is achieved.

STONE TO STONE WALL ≥ 150 MM

Oriëntation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			8-40	EI	45	FP404	FP404 fully filled	EI 45 – V – X – F – W 8 to 40	ETA-20/1118	5
vertical		X			8-50	EI	60	FP402 & FP404	FP402 fire side, FP404 non-fire side	EI 60 – V – X – F – W 8 to 50	ETA-20/1249, 20/1118	7, 10
vertical		X			8-50	EI	60	FP403 & FP404	FP403 fire side, FP404 non-fire side	EI 60 – V – X – F – W 8 to 50	ETA-20/1119, 20/1118	8, 10
horizontal	≥ 150 mm		X		10	EI	90	FP402	FP402 fire side	EI 90 – T – X – F – W 10	ETA-20/1249	8
horizontal	≥ 150 mm		X		8-20	EI	120	FP404	FP404 fully filled	EI 120 – T – X – F – W 8 to 20	ETA-20/1118	7
horizontal	≥ 150 mm		X		20-30	EI	60	FP404	FP404 fully filled	EI 60 – T – X – F – W 20 to 30	ETA-20/1118	7
horizontal	≥ 150 mm		X		10-40	EI	45	FP402	FP402 fire side	EI 45 – T – X – F – W 10 to 40	ETA-20/1249	8
horizontal	≥ 150 mm		X		10-40	E	120	FP402	FP402 fire side	E 120 – T – X – F – W 10 to 40	ETA-20/1249	8
horizontal	≥ 150 mm		X		30-40	EI	45	FP404	FP404 fully filled	EI 45 – T – X – F – W 30 to 40	ETA-20/1118	7
horizontal	≥ 150 mm		X		40	EI	60	FP402	FP402 fire side	EI 60 – T – X – F – W 40	ETA-20/1249	8
horizontal		X			5-50	EI	45	FP403	FP403 fire side	EI 45 – T – X – F – W 5 to 50	ETA-20/1119	8
horizontal		X			5-50	EI	90	FP403	FP403 non-fire side	EI 90 – T – X – F – W 5 to 50	ETA-20/1119	8
horizontal		X			5-50	E	240	FP403	FP403 fire side	E 240 – T – X – F – W 5 to 50	ETA-20/1119	8
horizontal		X			5-50	E	240	FP403	FP403 non-fire side	E 240 – T – X – F – W 5 to 50	ETA-20/1119	8

STONE TO STONE WALL ≥ 200 MM

Oriëntation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	pag
vertical		X			8-30	EI	120	FP404	FP404 fully filled	EI 120 – V – X – F – W 8 to 30	ETA-20/1118	5
vertical		X			30-40	EI	60	FP404	FP404 fully filled	EI 60 – V – X – F – W 30 to 40	ETA-20/1118	5
vertical		X			8-50	EI	45	FP402 & FP404	FP402 fire side, FP404 non-fire side	EI 45 – V – X – F – W 8 to 50	ETA-20/1249, 20/1118	7, 10
vertical		X			8-50	EI	120	FP403 & FP404	FP403 fire side, FP404 non-fire side	EI 120 – V – X – F – W 8 to 50	ETA-20/1119, 20/1118	8, 10

* Before application, consult the ETA and installation instructions to ensure that the intended fire resistance is achieved.

STEEL TO STEEL WALL ≥ 100 MM

Oriëntation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			5-20	EI	30	FP403	FP403 both sides	EI 30 – V – X – F – W 5 tot 20	ETA-20/1119	12
vertical		X			5-20	E	120	FP403	FP403 both sides	E 120 – V – X – F – W 5 tot 20	ETA-20/1119	12
vertical		X			20	EI	45	FP403	FP403 both sides	EI 45 – V – X – F – W 20	ETA-20/1119	12
vertical		X			20	EI	45	FP403	FP403 fully filled	EI 45 – V – X – F – W 20	ETA-20/1119	12
vertical		X			20	E	120	FP403	FP403 fully filled	E 120 – V – X – F – W 20	ETA-20/1119	12
horizontal		X			5-20	EI	45	FP403	FP403 both sides	EI 45 – T – X – F – W 5 tot 20	ETA-20/1119	12
horizontal		X			5-20	E	120	FP403	FP403 both sides	E 120 – T – X – F – W 5 tot 20	ETA-20/1119	12
horizontal		X			20	EI	60	FP403	FP403 both sides	EI 60 – T – X – F – W 20	ETA-20/1119	12
horizontal		X			20	EI	90	FP403	FP403 fully filled	EI 90 – T – X – F – W 20	ETA-20/1119	12
horizontal		X			20	E	120	FP403	FP403 fully filled	E 120 – T – X – F – W 20	ETA-20/1119	12

STEEL TO STEEL WALL ≥ 150 MM

Oriëntation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			5-20	EI	60	FP403	FP403 both sides	EI 60 – V – X – F – W 5 to 20	ETA-20/1119	12
vertical		X			5-20	E	120	FP403	FP403 both sides	E 120 – V – X – F – W 5 to 20	ETA-20/1119	12
horizontal		X			5-20	EI	90	FP403	FP403 both sides	EI 90 – T – X – F – W 5 to 20	ETA-20/1119	12
horizontal		X			5-20	E	120	FP403	FP403 both sides	E 120 – T – X – F – W 5 to 20	ETA-20/1119	12
horizontal		X			20	EI	120	FP403	FP403 both sides	EI 120 – T – X – F – W 20	ETA-20/1119	12

* Before application, consult the ETA and installation instructions to ensure that the intended fire resistance is achieved.

STONE TO WOOD WALL ≥ 100 MM

Oriëntation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			5-20	EI	120	FP403	FP403 both sides	EI 120 – V – X – F – W 5 tot 20	ETA-20/1119	12
vertical		X			5-20	E	120	FP403	FP403 both sides	E 120 – V – X – F – W 5 tot 20	ETA-20/1119	12
vertical		X			8-20	EI	120	FP403 & FP404	FP403 non-fire side, FP404 fireside	EI 120 – V – X – F – W 8 tot 20	ETA-20/1119, 20/1118	14, 8
vertical		X			8-20	EI	120	FP404	FP404 fully filled	EI 120 – V – X – F – W 8 tot 20	ETA-20/1118	5
verticaal		X			8-20	E	120	FP403 & FP404	FP403 non-fire side, FP404 fireside	E 120 – V – X – F – W 8 tot 20	ETA-20/1119	14
horizontal		X			5-20	EI	120	FP403	FP403 both sides	EI 120 – T – X – F – W 5 tot 20	ETA-20/1119	12
horizontal		X			5-20	E	120	FP403	FP403 both sides	E 120 – T – X – F – W 5 tot 20	ETA-20/1119	12
horizontal		X			8-20	EI	90	FP404	FP404 fully filled	EI 90 – T – X – F – W 8 tot 20	ETA-20/1118	6
horizontal		X			8-20	EI	120	FP403 & FP404	FP403 non-fire side, FP404 fireside	EI 120 – T – X – F – W 8 tot 20	ETA-20/1119, 20/1118	14, 8
horizontal		X			8-20	E	120	FP403 & FP404	FP403 non-fire side, FP404 fireside	E 120 – T – X – F – W 8 tot 20	ETA-20/1119	14
horizontal		X			20	E	240	FP403	FP403 both sides	E 240 – T – X – F – W 20	ETA-20/1119	12

GYPSUM TO STONE WALL ≥ 75 MM

Oriëntation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			10	EI	60	FP403	FP403 both sides	EI 60 – V – X – F – W 10	ETA-20/1119	15
horizontal	unspecified	X	X	25	10	EI	60	FP403	FP403 both sides	EI 60 – T – M 25 – F – W 10	ETA-20/1119	16
horizontal	unspecified	X	X	25	10	EI	60	FP403	FP403 non-fire side	EI 60 – T – M 25 – F – W 10	ETA-20/1119	16

GYPSUM TO STONE WALL ≥ 100 MM

Oriëntation	Floor thickness	Valid for wall	Valid for wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			10	EI	120	FP401	FP401 both sides	EI 120 – V – X – F – W 10	ETA-20/1250	9
verticaal		X			10	E	180	FP401	FP401 both sides	E 180 – V – X – F – W 10	ETA-20/1250	9
verticaal		X			10	EI	120	FP403	FP403 both sides	EI 120 – V – X – F – W 10	ETA-20/1119	15
horizontal		X			10	EI	120	FP401	FP401 both sides	EI 120 – T – X – F – W 10	ETA-20/1250	10
horizontal	unspecified	X	X	25	10	EI	120	FP403	FP403 both sides	EI 120 – T – M 25– F – W 10	ETA-20/1119	16
horizontal	unspecified	X	X	25	10	EI	120	FP403	FP403 non-fire side	EI 120 – T – M 25 – F – W 10	ETA-20/1119	16
horizontal		X			10	E	180	FP401	FP401 both sides	E 180 – T – X – F – W 10	ETA-20/1250	10

* Before application, consult the ETA and installation instructions to ensure that the intended fire resistance is achieved.

GYPSUM TO GYPSUM WALL ≥ 100 MM

Oriëntation	Floor thickness	Oriëntation wall	Oriëntation wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	page
vertical		X			10	EI	120	FP401	FP401 both sides	EI 120 – V – X – F – W 10	ETA-20/1250	9
vertical		X			10	EI	120	FP403	FP403 both sides	EI 120 – V – X – F – W 10	ETA-20/1119	15
vertical		X			10	E	180	FP401	FP403 both sides	E 180 – V – X – F – W 10	ETA-20/1250	9

FLOOR ≥ 100 MM

Oriëntation	Floor thickness	Oriëntation wall	Oriëntation wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	page
floor	≥ 100 mm				8	EI	60	FP404	FP404 fully filled	EI 60 – H – X – F – W 8	ETA-20/1118	6
floor	≥ 100 mm				10	EI	90	FP402	FP402 fire side	EI 90 – H – X – F – W 10	ETA-20/1249	7
floor	≥ 100 mm				10	EI	90	FP403	FP403 fire side	EI 90 – H – X – F – W 10	ETA-20/1119	10
floor	≥ 100 mm				10	E	120	FP402	FP402 fire side	E 120 – H – X – F – W 10	ETA-20/1249	7
floor	≥ 100 mm				10	EI	120	FP403	FP403 non-fire side	EI 120 – H – X – F – W 10	ETA-20/1119	10
floor	≥ 100 mm				10	EI	120	FP402	FP402 non-fire side	EI 120 – H – X – F – W 10	ETA-20/1249	8
floor	≥ 100 mm				8-20	EI	45	FP404	FP404 fully filled	EI 45 – H – X – F – W 8 tot 20	ETA-20/1118	6
floor	≥ 100 mm				10-25	EI	30	FP402	FP402 fire side	EI 30 – H – X – F – W 10 tot 25	ETA-20/1249	7
floor	≥ 100 mm				10-25	E	60	FP402	FP402 fire side	E 60 – H – X – F – W 10 tot 25	ETA-20/1249	7
floor	≥ 100 mm				10-25	E	120	FP403	FP403 non-fire side	E 120 – H – X – F – W 10 tot 25	ETA-20/1119	10
floor	≥ 100 mm				10-25	EI	90	FP402	FP402 non-fire side	EI 90 – H – X – F – W 10 tot 25	ETA-20/1249	8
floor	≥ 100 mm				20-30	EI	30	FP404	FP404 fully filled	EI 30 – H – X – F – W 20 tot 30	ETA-20/1118	6
floor	≥ 100 mm				25-40	EI	20	FP402	FP402 fire side	EI 20 – H – X – F – W 25 tot 40	ETA-20/1249	7
floor	≥ 100 mm				30-40	EI	20	FP404	FP404 fully filled	EI 20 – H – X – F – W 30 tot 40	ETA-20/1118	6
floor	≥ 100 mm				10-40	EI	30	FP403	FP403 fire side	EI 30 – H – X – F – W 10 tot 40	ETA-20/1119	10
floor	≥ 100 mm				40	E	60	FP403	FP403 non-fire side	E 60 – H – X – F – W 40	ETA-20/1119	10
floor	≥ 100 mm				10-40	EI	60	FP403	FP403 non-fire side	EI 60 – H – X – F – W 10 tot 40	ETA-20/1119	10
floor	≥ 100 mm				10-40	E	120	FP403	FP403 fire side	E 120 – H – X – F – W 10 tot 40	ETA-20/1119	10
floor	≥ 100 mm				10-40	E	120	FP402	FP402 non-fire side	E 120 – H – X – F – W 10 tot 40	ETA-20/1249	8
floor	≥ 100 mm				25-40	EI	45	FP402	FP402 non-fire side	EI 45 – H – X – F – W 25 tot 40	ETA-20/1249	8

* Before application, consult the ETA and installation instructions to ensure that the intended fire resistance is achieved.

FLOOR ≥ 150 MM

Oriëntation	Floor thickness	Oriëntation wall	Oriëntation wall abutting a floor	Motion	Joint Width	E/EI	Minutes	Product	Application	Classification	ETA	page
floor	≥ 150 mm				10	EI	90	FP402	FP402 fire side	EI 90 – H – X – F – W 10	ETA-20/1249	7
floor	≥ 150 mm				8-20	EI	120	FP404	FP404 fully filled	EI 120 – H – X – F – W 8 tot 20	ETA-20/1118	6
floor	≥ 150 mm				20-30	EI	60	FP404	FP404 fully filled	EI 60 – H – X – F – W 20 tot 30	ETA-20/1118	6
floor	≥ 150 mm				10-40	EI	45	FP402	FP402 fire side	EI 45 – H – X – F – W 10 tot 40	ETA-20/1249	7
floor	≥ 150 mm				30-40	EI	45	FP404	FP404 fully filled	EI 45 – H – X – F – W 30 tot 40	ETA-20/1118	6
floor	≥ 150 mm				10-40	EI	60	FP402	FP402 fire side	EI 60 – H – X – F – W 10 tot 40	ETA-20/1249	7
floor	≥ 150 mm				40	EI	60	FP402	FP402 fire side	EI 60 – H – X – F – W 40	ETA-20/1249	7
floor	≥ 150 mm				10-40	E	120	FP402	FP402 fire side	E 120 – H – X – F – W 10 tot 40	ETA-20/1249	7

* Before application, consult the ETA and installation instructions to ensure that the intended fire resistance is achieved.

FLOOR ≥ 150 MM

Construction	Substrates	Thickness	Orientation	Floor thickness	Valid for Wall	Valid for Wall abutting a floor	Movement % applied in test	Joint width	E/EI	Minutes	Product	Application
wall	gypsum to stone	≥ 75 mm	vertical		X			10	EI	60	FP 401	FP 401 both faces 12.5mm depth on 50 mm steel partition head track
wall	gypsum to stone	≥ 75 mm	vertical		X			10	E	90	FP 401	FP 401 both faces 12.5mm depth on 50 mm steel partition head track
wall	gypsum to stone	≥ 75 mm	vertical		X			10	EI	60	FP 403	FP 403 both faces 12.5mm depth on 50 mm steel partition head track
wall	gypsum to stone	≥ 75 mm	vertical		X			10	E	90	FP 403	FP 403 both faces 12.5mm depth on 50 mm steel partition head track
wall	gypsum to stone	≥ 75 mm	horizontal	≥ 150 mm		X		10	EI	60	FP 401	FP 401 both faces 12.5mm depth on 50 mm steel partition head track
wall	gypsum to stone	≥ 75 mm	horizontal	≥ 150 mm		X		10	E	90	FP 401	FP 401 both faces 12.5mm depth on 50 mm steel partition head track
wall	gypsum to stone	≥ 100 mm	horizontal	≥ 150 mm		X		10	EI	120	FP 401	FP 401 both faces 15mm depth on PE/PU backer rod
wall	gypsum to stone	≥ 100 mm	vertical		X			10	EI	60	FP 401	FP 401 both faces 15mm depth on PE/PU backer rod
wall	gypsum to stone	≥ 100 mm	vertical		X			10	EI	90	FP 403	FP 401 both faces 15mm depth on PE/PU backer rod

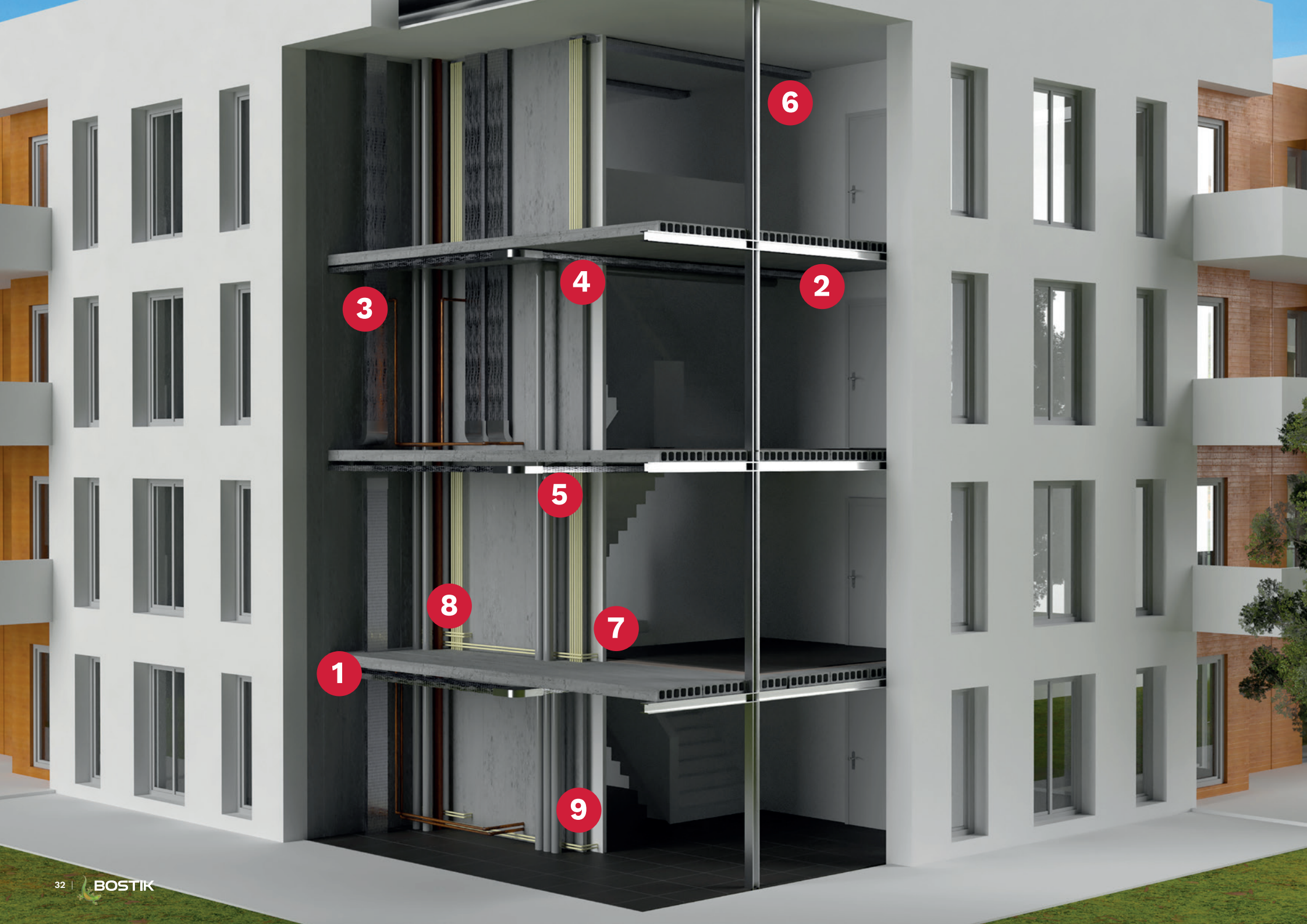
The CE marking of the Bostik products for passive fire protection ensures the high standard of quality for the FP range. The CE marking indicates that the product complies with all the essential requirements for these products set by the European Union. The applications for the product as mentioned in each ETA are based on numerous tests over the past years at the certified fire test institutes of which the results have been validated by the notified body that gives out the ETA according to the applicable European standards.

Apart from this, the manufacturing plant of the specific CE marked product is inspected twice a year by an auditor of the notified body to check every detail in te manufacturing process such as the composition of the recipe, the quality control of used raw materials, training of people involved in production process, quality control of each batch produced, calibration of production and laboratory equipment used and traceability of products sold (even back to the batch of raw materials used).

In this way CE marking makes the performance of the product very transparent and it provides a clear and standardized way for architects, builders, contractors and local authorities to check the product’s conformity to the standards and useability in a specific situation.

In summary the CE marking of the Bostik products for passive fire protection is a quality insurance, assuring stakeholders that the product they use adheres to stringent standards, promotes safety and reliability in the built environment.





5.3 PORTFOLIO FOR PENETRATION SEALS (EN 1366-3)

1



BOSTIK FP310 INTUMESCENT ACOUSTIC ACRYLIC
Fire resistant 1-component intumescent acrylic sealant
 - Tested for plastic pipes up to 32mm diameter
 - Very high sound insulation
 - Tested in wooden (also CLT) walls and floors

4



BOSTIK FP320 FIRE BATT
High-density stone wool board, coated with FP312
 - Can be used in unlimited lengths in walls and floors
 - Up to 4 hours fire resistance
 - High sound insulation

7



BOSTIK FP350 GRAPHITE PLATE
A self-adhesive graphite plate for flush-mounted boxes in hollow walls
 - Very easy assembly
 - Rapidly expanding graphite material
 - Up to 120 minutes fire resistance

2



BOSTIK FP311 INTUMESCENT GRAPHITE
Fire-resistant intumescent graphite sealant
 - Suitable for PVC pipes up to 160 mm
 - Tested in wooden (also CLT) walls and floors
 - Up to 4 hours fire resistance

5



BOSTIK FP330 PIPE COLLAR
Fire sleeve that fills the void fills the empty space when pipes or insulation melt
 - Easy assembly due to two-shell principle
 - Tested in wooden (also CLT) walls and floors
 - Excellent sound insulation

8



BOSTIK FP360 PUTTY CORD
Kneadable and reusable silicone-based fireproof putty of silicone
 - Guaranteed lifetime of 50 years
 - For steel pipes up to 324 mm diameter
 - No emissions, environmentally user-friendly

3



BOSTIK FP312 FIRE RETARDANT COATING
Sprayable ablative coating
 - Easy to apply with brush or spray
 - High sound insulation
 - Up to 4 hours fire resistance

6



BOSTIK FP340 PIPE WRAP
Flexible graphite tape that expands in case of fire and seals gaps and openings
 - Also available on rolls of 25 metres
 - Classified for all types of construction, including CLT
 - Guaranteed lifetime of 25 years

9



BOSTIK FP370 FIRESEAL MORTAR
Gypsum-based fire-retardant mortar for walls and floors
 - Easily applicable
 - Up to 4 hours fire resistance
 - High noise insulation



- Tested for plastic pipes up to 32mm diameter
- Very high sound insulation
- Tested in wooden (also CLT) walls and floors

BOSTIK FP310 INTUMESCENT ACOUSTIC ACRYLIC

FIREPROOFING 1-COMPONENT INTUMESCENT ACRYLIC SEALANT

BOSTIK FP310 Intumescent Acoustic Acrylic is designed to prevent the spread of fire and smoke through joints and openings in fire-resistant walls and floors, including openings around building penetrations.

Suitable for most surfaces, including concrete, masonry, steel, plaster-board, plastic and most non-porous surfaces. The product can be used in combination with, for example, Bostik FP330 Pipe Collars, Bostik FP340 Pipe Wraps and Bostik FP320 Fire Batts.

CE certification for fire protection according to ETA:
ETA-21/0550
ETA-21/0552
UL-EU certified

Product features

- Certified to the latest European standards EN 1366-3 and EN 1366-4
- Fire resistance up to 4 hours
- Movement absorption up to 12.5%
- Very high sound insulation
- Easy to apply with a smooth finish
- Paintable with most types of water-based and alkyd paints
- Easy to clean
- Cures quickly, tack-free after 1 hour
- Certified for wood / CLT
- tested for plastic pipes up to 32mm diameter
- 24 months shelf life (under correct conditions)



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



- Suitable for PVC pipes up to 160 mm
- Tested in wooden (also CLT) walls and floors
- Up to 4 hours fire resistance

BOSTIK FP311 INTUMESCENT GRAPHITE

FIRE-RESISTANT INTUMESCENT GRAPHITE SEALANT

BOSTIK FP311 Intumescent Graphite is designed to seal large void spaces created during fire when plastic pipes and combustible insulation material melt and create gaps.

This product is also suitable for sealing difficult penetrations from fire in places where a traditional fire-resistant sealant cannot.

CE certification for fire resistance according to ETA:
ETA-19/0395
UL-EU certified

Product features

- Certified according to the latest European standard EN 1366-3
- Fire resistance up to 4 hours
- Classified for plastic pipes and cables in most structures
- Suitable for most surfaces, including concrete, brick, steel, wood, plaster, PVC and most non-porous surfaces
- Excellent sound insulation
- Easy to apply
- Fast curing, tack-free after 1 hour
- Paintable with most types of water-based and alkyd paints
- Certified for wood / CLT



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



- Easy to apply by brush or spray
- High sound insulation
- Up to 4 hours fire resistance

BOSTIK FP312 FIRE RETARDANT COATING

FIRE-RETARDANT ABLATIVE COATING

Bostik FP312 Fire Retardant Coating is a brushable and sprayable coating used on mineral fibres. The coating provides a strong, flexible and white surface finish, reduces delamination and increases the stability of stone wool when applying adhesives and sealants. It prevents the spread of fire and smoke and protects the mineral fibres from fire penetration and reduces temperature rise and heat conduction.

It can be applied to most surfaces and can be combined with other products such as Bostik FP310 Intumescent Acoustic Acrylic, Bostik FP320 Fire Batt and Bostik FP340 Pipe Wrap.

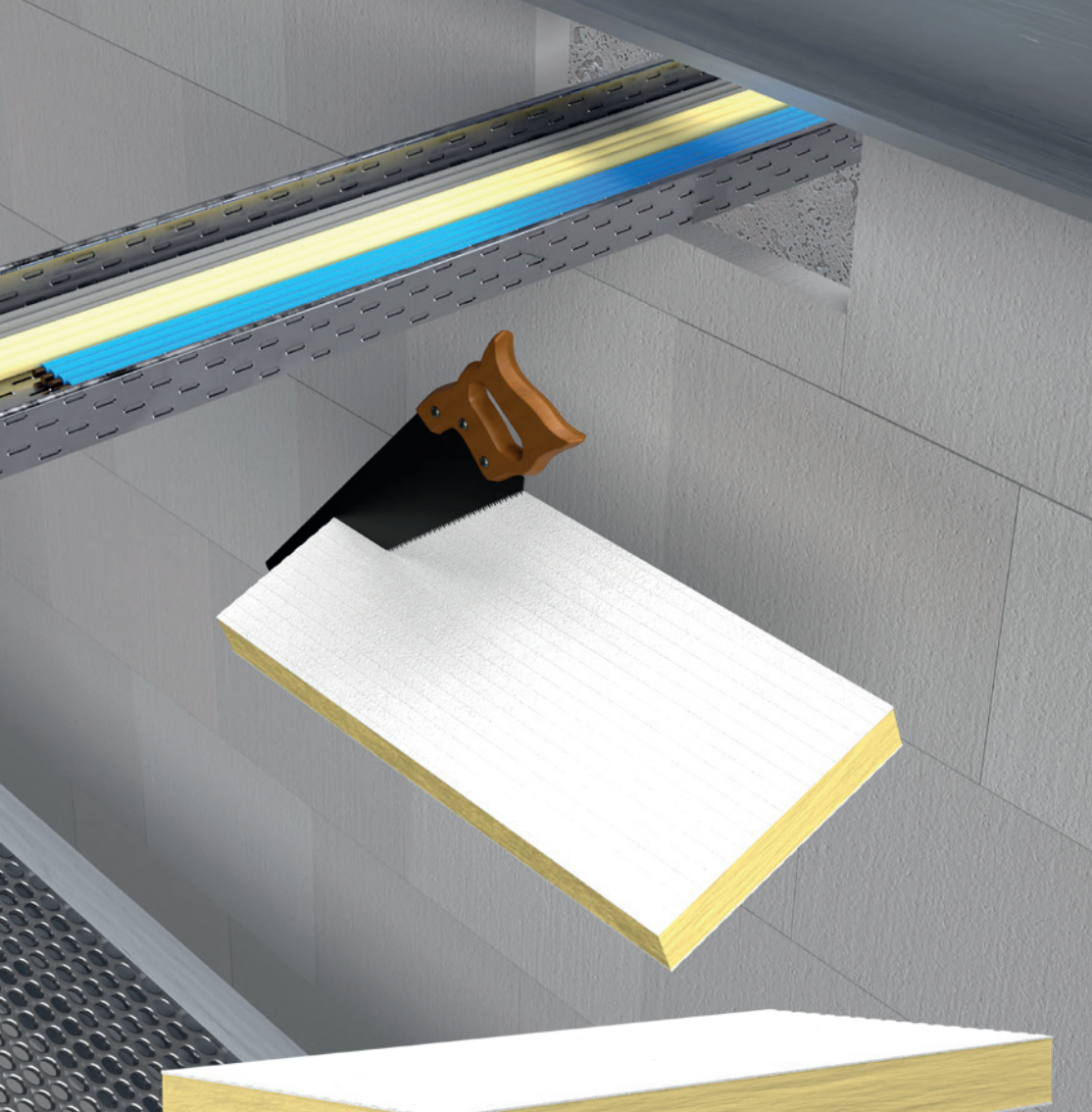
CE certification for fire protection according to ETA:
ETA-19/0393
ETA-19/0394

Product features

- Certified according to the latest European standards EN 1366-3 & 4
- Permanently flexible, can accommodate movements during a fire in small structures
- The coating is classified for all types of constructions, both with and without pipe penetrations
- Can be used in unlimited lengths in walls up to 1200 mm high and floors with a width of up to 120 mm
- For gypsum walls without framework around the opening
- Paintable with most types of water-based and alkyd paints
- Easy to clean
- Resistant to water and frost after complete curing



Article number	EAN code	Colour	Packaging	Packed by
30614868	8713572041617	white	bucket 8 ltr	bucket



- Can be applied in unlimited lengths in walls and floors
- Up to 4 hours fire resistance
- High sound insulation

BOSTIK FP320 FIRE BATT

FIRE-RESISTANT STONE WOOL SLAB WITH HIGH TIGHTNESS

Bostik FP320 Fire Batt is a high-density stone wool board. The board is coated on two sides with Bostik FP312 Fire Retardant Coating and specially designed to maintain the fire resistance of partitions and floors in case of additional penetrations to be installed. Bostik FP320 Fire Batt is designed to prevent the spread of fire and smoke through openings and penetrations (for pipes and cables, for example) in fire-resistant walls and floors, while also maintaining acoustic design performance in walls and floors.

Bostik FP320 Fire Batt should be used in combination with Bostik FP310 Intumescent Acoustic Acrylic, for sealing around the penetrations and surrounding construction.

CE certification for fire protection according to ETA:
ETA-19/0392
UL-EU certified



Article number	EAN code	Colour	Packaging	Packed by
30614782	8713572041624	white	50 mm x 60 cm x 120 cm	1 piece in foil
30616370	8713572042904	white	60 mm x 60 cm x 120 cm	1 piece in foil



- Easy assembly due to two-schale principle
- Tested in wooden (also CLT) walls and floors
- Excellent sound insulation

BOSTIK FP330 PIPE COLLAR

**FIRE SLEEVE THAT FILLS THE VOID WHEN PIPES OR INSULATION
MELTS**

BOSTIK FP330 Pipe Collar is a steel fire cuff with a graphite inlay that fills empty spaces in case of fire. It is designed to fit around plastic pipes and has a simple locking mechanism. The collar ensures that the fire resistance of walls and floors is maintained where plastic pipes and combustible pipe insulation penetrate the structure.

**CE certification for fire protection
according to ETA:**
ETA-19/0391
UL-EU certified

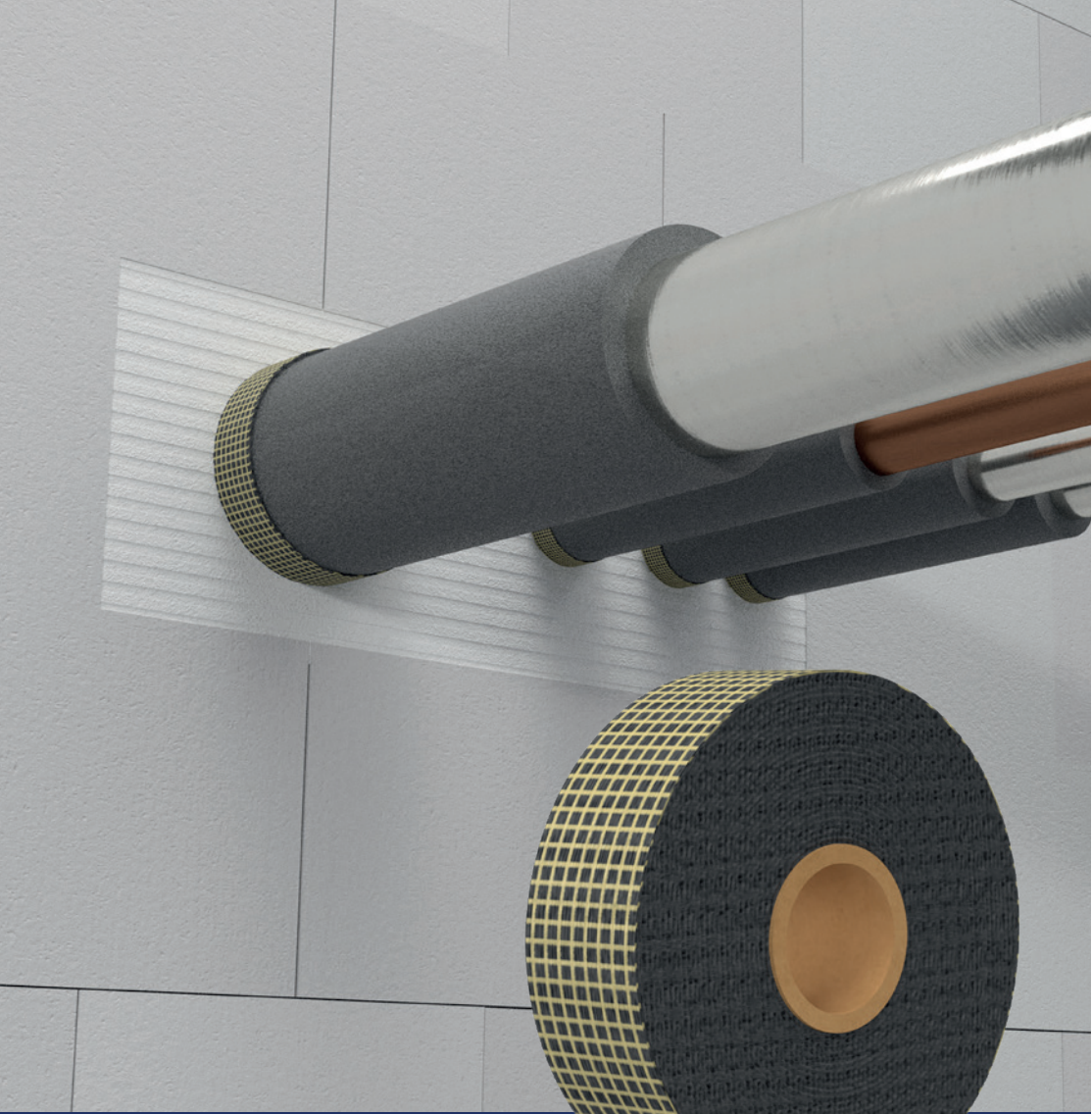


Product features

- Certified according to the latest European standard EN 1366-3
- Fire resistance of up to 4 hours for both integrity and insulation
- Rapidly expanding graphite material
- Classified for fire fire-resistant sealing of all types of construction and many different penetrations
- Tested and certified for U/U pipe end applications
- Very easy to install using commonly available standard fasteners
- Certified for wood / CLT



Article number	EAN code	Colour	Packaging	Packed by
30619141	8713572043185	white	Ø55/50 mm	24 pieces per box
30614856	8713572041631	white	Ø75/30 mm	24 pieces per box
30615019	8713572042331	white	Ø75/50 mm	24 pieces per box
30614857	8713572041648	white	Ø82/30 mm	24 pieces per box
30615018	8713572042348	white	Ø82/50 mm	24 pieces per box
30614858	8713572041655	white	Ø110/30 mm	24 pieces per box
30615017	8713572042355	white	Ø110/50 mm	24 pieces per box
30614859	8713572041662	white	Ø125/60 mm	20 pieces per box
30614860	8713572042218	white	Ø160/60 mm	12 pieces per box
30614861	8713572042225	white	Ø200/60 mm	2 pieces per box
30614862	8713572042232	white	Ø250/75 mm	2 pieces per box
30623632	8711595225830	white	Ø315/75 mm	2 pieces per box



- Available as fire sleeve (pre-cut size)
- Also available on 25-meter rolls
- Classified for all types of construction
- Guaranteed lifespan of 25 years

BOSTIK FP340 PIPE WRAP

**FLEXIBLE GRAPHITE TAPE THAT EXPANDS IN CASE OF FIRE AND
SEALS GAPS AND OPENINGS**

BOSTIK FP340 Pipe Wrap is made of a reactive intumescent strip of graphite that reacts to heat. The fire sleeve is applied completely around an (insulated) pipe and secured with tape. The gap around the sleeve is sealed with Bostik FP370 Fireseal Mortar or Bostik FP320 Fire Batt.

**CE certification for fire protection
according to ETA:**
ETA-19/0390
UL-EU certified



Article number	EAN code	Colour	Packaging	Packed by
30614863	8713572041679	white	Ø55 mm	25 pieces per box
30614864	8713572041686	white	Ø82 mm	25 pieces per box
30614865	8713572041693	white	Ø110 mm	25 pieces per box
30614866	8713572041709	white	Ø125 mm	20 pieces per box
30615057	8713572042393	black	50 mm x 25 m	1 piece per box
30615056	8713572042409	black	75 mm x 25 m	1 piece per box





- Very easy assembly
- Rapidly expanding graphite material
- Up to 120 minutes fire resistance

BOSTIK FP350 GRAPHITE PLATE

A SELF-ADHESIVE GRAPHITE PLATE FOR FLUSH-MOUNTED BOXES IN HOLLOW WALLS

BOSTIK FP350 Graphite Plate is used to restore the fire resistance of partition walls after they have been penetrated to install plastic built-in/ wall sockets. In case of fire, Bostik PF350 Graphite Plate expands immediately due to heat and seals the box, stopping fire and smoke. Also tested with connected cables and pipes to prevent smoke and fire from penetrating into other boxes through the installation pipes. Bostik FP350 Graphite Plate restores the fire resistance of partitions for 120 minutes.

Product features

- Certified according to the latest European standard EN 1366-3
- Rapidly expanding graphite material
- For flexible walls with a minimum thickness of 75 mm
- Can be used for insulated and uninsulated walls
- Tested with a wide range of cables and installation pipes connecting boxes interconnecting boxes
- Tested with empty installation tubes between boxes, for future cable entry
- Ready for use

CE certification for fire protection
according to ETA:
ETA-19/0389
UL-EU certified



Article number	EAN code	Colour	Packaging	Packed by
30615087	8713572041723	grey	45 x 310 ml	10 pieces per box
30615086	8713572041730	grey	Ø59 mm	10 pieces per box



- Guaranteed service life of 50 years
- For steel pipes up to 324 mm diameter
- No emissions, environmentally and user-friendly

BOSTIK FP360 PUTTY CORD

KNEADABLE AND REUSABLE SILICONE-BASED FIREPROOF PUTTY

BOSTIK FP360 Putty Cord is a malleable sealing putty that can be applied manually and does not harden. It is specially designed to be used around awkward penetration holes with limited space for traditional fire sealant. This malleable putty allows you to seal the space around pipes without having to consider the required depth. It restores the fire resistance of partitions and prevents the spread of smoke and fire in case of fire. In addition, it has sound-insulating properties and does not let air through.

Product features

- Certified according to the latest European standard EN 1366-3
- Fire-resistant for 120 minutes, also in terms of insulation
- Fire seal without minimum ring width around pipe penetrations
- For cables and pipes made of steel, copper and alupex
- Ensures good fire resistance of pipe penetrations in a partition wall made of panel panel, brick or concrete wall and in a concrete floor.
- Prevents the penetration of cold and hot smoke
- Self-adhesive and very easy to apply without tools
- Impervious to moisture, so can also be used in wet rooms
- Does not harden and seals well
- Can be shaped if necessary
- Very easy to install



Article number	EAN code	Colour	Packaging	Packed by
30615327	8713572041747	red	20 cm lang	5 pieces per box



- Easily applicable
- Up to 4 hours fire resistance
- High sound insulation

BOSTIK FP370 FIRESEAL MORTAR

PLASTER-BASED FIRE-RETARDANT MORTAR

Bostik FP370 Fireseal Mortar is intended for restoring the fire resistance of partitions, stony walls and floor structures, if holes have been made in them for cables and metal pipes.

Bostik FP370 Fireseal Mortar is a white powder consisting of inorganic compounds and perlite. Due to its hydraulic action during curing, Bostik FP370 Fireseal Mortar expands approximately 1% and seals openings around pipes very well.

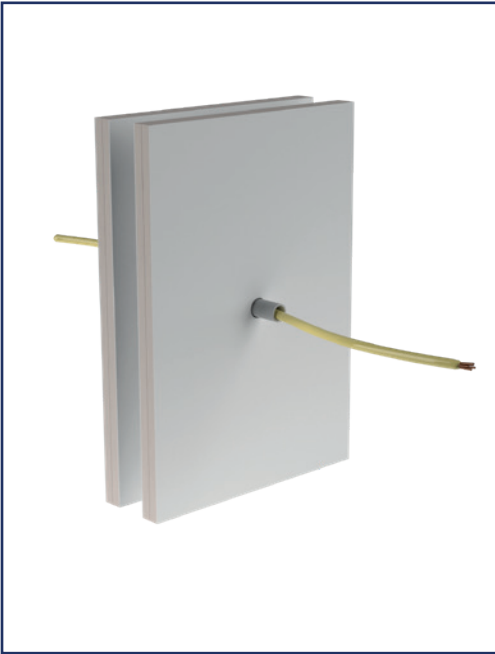
Bostik FP370 Fireseal Mortar is easy to sand and also suitable for drilling. Once dry, the mortar is off-white and paintable if desired. Bostik FP370 Fireseal Mortar preserves the acoustic properties of walls and floors.

CE certification for fire protection according to ETA:
ETA-19/0387
UL-EU certified

- Product features**
- Certified according to the latest European standard EN 1366-3
 - Fire safety specification is based on curing after 1 month
 - Classified for walls and floors of concrete, brick, etc.
 - Suitable for cables, cable bundles, cable trays cable guides, steel, copper alupex, plastic pipes and air ventilation ducts
 - High mechanical resistance
 - Suitable for most surfaces
 - Although this product is certified for use on walls, for this application we recommend Bostik FP320 Fire Batt
 - Easy to apply, very smooth finish
 - Fully cured within 1 hour
 - Suitable for in a floor opening of 1200 by 2400 mm without reinforcement

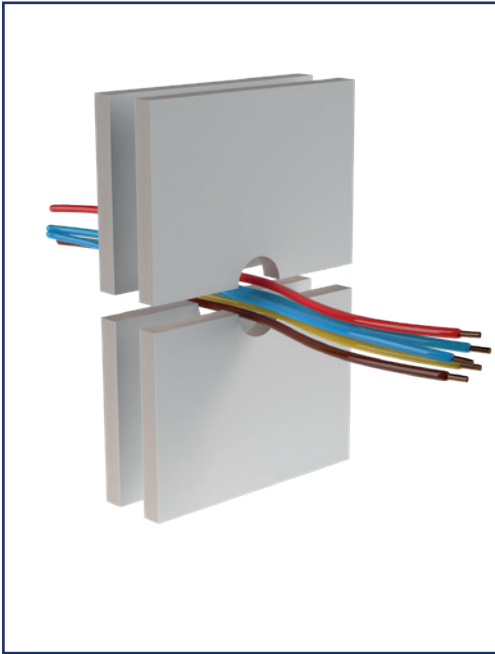
Article number	EAN code	Colour	Packaging	Packed by
30615213	8713572042270	white	15 kg	bag

5.4 PENETRATIONS PRODUCT SELECTOR (EN 1366-3)



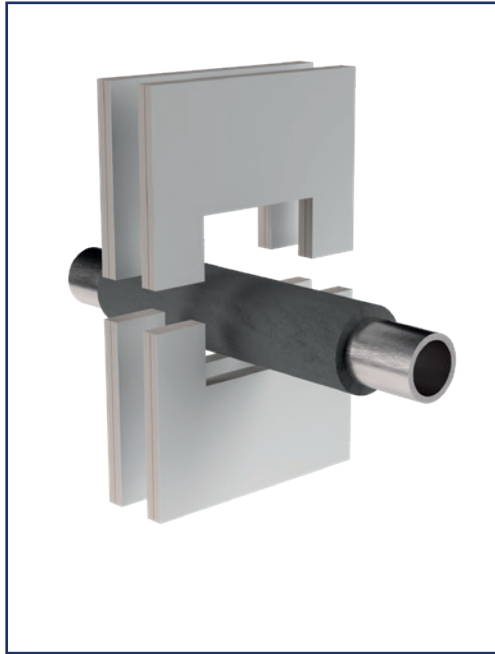
Fire Protect System
No gaps 0-10 mm
Walls & floors

1. FP360 PUTTY CORD
2. FP330 PIPE COLLAR



Fire Protect System
10-30 mm gaps
Walls & floors

1. FP310 INTUMESCENT ACOUSTIC ACRYLIC
2. FP311 INTUMESCENT GRAPHITE



Fire Protect System
30 mm gaps + larger apertures
Walls

1. FP320 FIRE BATT
2. FP310 INTUMESCENT ACOUSTIC ACRYLIC
3. FP340 PIPE WRAP



Fire Protect System
Larger apertures
Floors

1. FP370 FIRESEAL MORTAR
2. FP340 PIPE WRAP



6. ADVICE & GUIDANCE

When you first start working with passive fire resistance, or you have a complex project, personal advice can be very helpful.

At Bostik, we are ready to help you get started and answer your questions. That is why we are happy to visit your office or construction site to examine the situation and give you the best advice on the most practical solution.

Clear offer

The choice of which products you need, we will make it as straightforward as possible. We keep it simple for the processor with a wide range of penetrations and solutions for linear joints.

A good starting point: the website

You will find extensive information on our website, including a whitepaper, well-organised product pages with certifications and technical data sheets, and application videos.

<https://www.bostik.com/global/en/bostik-academy/library/product-portfolio/passive-fire-protection/>

Thinking along at an early stage

Involve us in your project at an early stage. This way During the design phase, we can think along and advise on the passive fire resistance of your project.

Providing technical advice

If desired, we can provide tailor-made technical advice for your project, detailing the points of attention, regulations, products to be products per detail and the processing guidelines are addressed.

Support during construction

If you choose to carry out the work under your own management you can count on our support in processing the products, for example in the form of technical training courses. Naturally, we can also put you in touch with specialised applicators. Whichever choice you make, we will assist the construction professionals on the project with the correct application of the products.

Monitoring during construction

During the construction process, we will visit the location to discuss whether everything is going according to plan, everything is clear and whether any adjustments or corrections are necessary. We will make a report and share it with you. This is an extra assurance of a job well done.



Ronald Verheijen
Global S&B Business Developer



William Treffers
Global S&B Business Development Manager

BOSTIK ACADEMY

THE KNOWLEDGE
CENTRE BY AND FOR
PROFESSIONALS



7. BOSTIK TRAINS YOUR SKILLS

Become the best in your trade and have your skills trained at the Bostik ACADEMY, the knowledge centre specifically designed for professionals in the construction market.



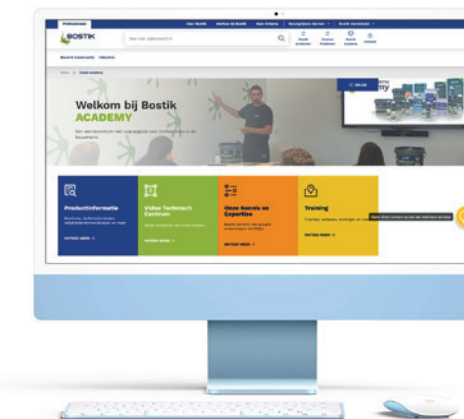
The Bostik Academy offers you training programmes and workshops on products, concepts and applications, which are held at the Centre of Excellence. In addition we also provide training through webinars and digital workshops. In this way, we help processors with up-to-date knowledge and technical support.

Training programme

At Bostik Academy, we offer a training programme that is perfectly tailored to everyone's needs. Our expert technical team presents our product portfolio, the best application methods and important industry recommendations. In addition, we can also offer customised training courses for you and your team. Contact us and we will discuss the possibilities.

Roadshow with the Bostik SmartVan

The Bostik SmartVan roadshow comes to bring knowledge to you. Bostik's technical advisers come to your location to provide product information and training sessions. Get in touch with us to discuss the possibilities.



Do you have a challenge and are looking for a solution?

You can find lots of information on the online platform:

Product information

- Brochures
- Technical sheets
- Safety data sheets

Video Technical centre

- Installation videos
- Product Videos

Knowledge and Expertise:

- Knowledge articles
- Frequently Asked Questions

Training courses

- Tutorials
- Webinar
- Trainings

Check the following:

<https://www.bostik.com/global/en/bostik-academy/>

Contact

If you would like to know more, please do not hesitate to contact us.





ATTACHED TO YOUR WORLD

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Adhesive solutions by **ARKEMA**