

# PRODUCT PORTFOLIO

Passive Fire Protection





# Easy to use. Tough on Fire.

Leading the way since 1993, Polyseam specialise in manufacturing evidence-based, high-performance fire protection products and systems you can trust to perform well.

With over 25 years of experience, our UK and European chemists, engineers and technicians continue to lead the field in research, development and manufacturing – and our Protecta® range of market-leading passive fire protection is a direct result of their pioneering expertise.

Protecta® products continue to raise standards across our industry. Our expertise and unwavering commitment to quality, safety and performance enables our customers to create safer environments for all. And we invest in excellence at every stage of the product lifecycle, from supporting those making crucial decisions about building structures and fit out, to the specialists on the frontline who are responsible for installing our products correctly.

To ensure all Protecta® products meet the strict requirements of today's construction projects, we are committed to on-going testing and development programmes in co-operation with major laboratories. Based in the UK and Norway, our state-of-the-art facilities allow us to regularly test and innovate our products, ensuring the highest quality is delivered every time.

Our dedicated after sales support service makes our customers lives easier. Comprehensive product training, expert technical advice and on-site guidance equips our customers with everything they need to get the job done efficiently and effectively. We are committed to creating safer environments for all - that's why we work with fire installers from all over the world to educate on how to achieve fire safety compliance.

These are just some of the reasons why Protecta® from Polyseam is the most trusted name in Passive Fire Protection.





# Contents

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Protecta® Eco-Foil System	3
Protecta® FR Acrylic	4
Protecta® FR Graphite	5
Protecta® FR IPT	6
Protecta® FR Adhesive	7
Protecta® FR Board	8
Protecta® EX Mortar	9
Protecta® FR Service Transit	10
Protecta® FR Collar	11
Protecta® FR Pipe Wrap	12
Protecta® FR Graphite Plate	13
Protecta® FR Damper	14
Protecta® Interior Paint FR-1	15
Protecta® Steel Paint FR-1	16
Protecta® FR Coating	17
Protecta® Service Coating FR-1	18
Protecta® Waterproofer	19
Protecta® FR Putty Pads	20
Protecta® FR Putty Cord	21
Application Overview	22



## NEW Protecta® Eco-Foil System

Our new and innovative Eco-Foil system is cost effective, efficient and designed to minimise waste.

The system works by inserting a 300ml foil into the reusable Eco-Cartridge, which fits into a standard skeleton gun. The cartridge has a double-ended plunger, so once the foil is empty, remove the cap and nozzle and re-fill the opposite end with a new 300ml foil. Simply replace the cap and nozzle at the opposite end and the system is ready for use!

Products available in the new Eco-Foil range:

- Protecta® FR Acrylic 300ml in boxes of 25 foils
- Protecta® FR Graphite 300ml in boxes of 25 foils
- Protecta® FR IPT 300ml in boxes of 25 foils
- Eco-Cartridges (empty) in boxes of 12 pieces
- 300ml foil gun, per piece



**Can be reused  
a minimum of 60 times**



**The system fits into a  
standard skeleton gun**



**Less waste to  
dispose of on site**



**6 months longer shelf life than  
the same product in a cartridge**





# Protecta® FR Acrylic

## Fire rated intumescent acrylic sealant

### General description

Protecta® FR Acrylic is the top selling fire rated mastic in our product range. Unlike many intumescent sealants currently on the market, FR Acrylic is comprehensively tested as both a linear joint seal and a penetration sealing system for a multitude of applications and service types. FR Acrylic is also a key component of the FR Board system, used for both linear joint seals and service penetration seals.

Protecta® FR Acrylic is tested with many different types of penetrations through many different constructions. It is intumescent and closes the gap even after plastic pipes burn away.

### Main uses

Protecta® FR Acrylic is 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.

### Features

- High end formula, certified in most countries worldwide
- Faster application times and minimal material use due to its ability to achieve high fire ratings and single sided installations
- Classified for fire sealing all types of constructions such as drywalls, masonry walls, concrete walls, concrete floors and composite floors
- Classified for fire stopping of service penetrations in cross-laminated timber walls and floors
- Classified for fire sealing all types of building service penetrations such as cables, cable bundles, cable conduits, steel pipes, copper pipes, composite pipes, PVC pipes, PE pipes, ABS pipes, PP pipes and PEX pipe-in-pipes
- Classified with commonly used pipe insulations such as stone wool, glass wool, elastomeric and phenolic, both interrupted and continuous through the fire seal
- Classified for fire sealing against timber, steel and aluminium such as door and window frames
- Causes no deleterious effects on cPVC pipes like BlazeMaster, supported by mechanical testing evidence
- Air, smoke and gas tight, tested at 600 Pascal
- Available in the Protecta Eco-Foil system
- Low VOC emissions - environmentally and user friendly
- No priming necessary for application to most materials
- Suitable for most surfaces, including concrete, masonry, steel, gypsum, glass, plastics and most non-porous surfaces

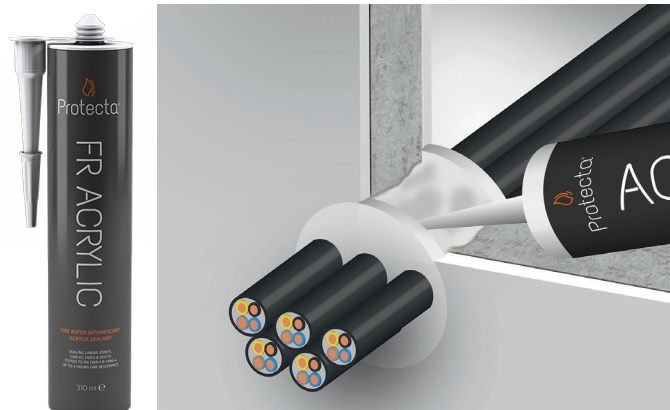
### Ratings

#### Sound rating:

- Rw 62dB - Single sided seal  $\geq 12$ mm depth.
- Rw >62dB - Double sided seal  $\geq 12$ mm depth.

#### Fire rating:

- Up to 4 hours depending on application.



### Technical data

Condition	Ready for use, acrylic based filler
Specific gravity	1.56 – 1.60
Flash point	None
Reaction to fire	Class B-s1, d0
Air permeability	Air, smoke and gas tight tested to EN 1026: 2016
Expansion in fire	1 : 2-3
Non-sticky	Max. 75 minutes
Film forming	Max. 25 minutes
Totally hardened	3 to 5 days depending on thickness and temperature
Flexibility	12.5% in mortar/concrete/masonry to EN ISO 9046
Durability	Z2 intended for use in internal conditions with humidity classes other than Z1, excluding temperatures below 0 °C
BWR 3	Use category IA1, S/W3
Thermal conduct.	0.845 W/mK (+/- 3%) @ 20mm depth
Working life	30 years
Service temp.	-20 to +70°C
Application temp.	+5 to +30°C
Compatibility	Suitable for use with most materials, but should not be used in direct contact with bituminous materials
Limitations	Should not be used in permanently damp areas or in joints with high movement
Classification	CE-marked - Sealant for fire rated joints and penetrations class EI 240
Standard colours	Standard white, pure white, grey or red
Colour codes	White: RAL 9002 / NCS S1002-Y Grey: NCS S5500-N
Packaging	Box containing 25 cartridges each 310 ml Box containing 25 eco-foils each 300 ml Box containing 12 foil packed each 600 ml Pallets 310 ml: 64 boxes per pallet equals 1600pcs Pallets 600 ml: 91 boxes per pallet equals 1092pcs

### Certificates





# Protecta® FR Graphite

## Fire rated intumescent graphite sealant

### General description

Protecta® FR Graphite is a high specification formulation designed to prevent the spread of fire, smoke and gases through openings in fire rated walls and floors. Protecta® FR Graphite expands when it is subjected to fire and closes openings around penetrations when any combustible or low temperature melting materials have burnt away.

Protecta® FR Graphite is designed to fire seal combustible services which traditional fire rated mastics do not achieve such as large plastic pipes and combustible insulation.

### Main uses

The intended use of Protecta® FR Graphite is to reinstate the fire resistance performance of flexible and rigid wall, and floor constructions where they are penetrated by plastic pipes and metal pipes fitted with combustible insulation.

### Features

- Classified in most constructions for plastic pipes, cables and combustible pipe insulations
- Easy to apply
- High sound insulation
- Low VOC emissions - environmentally and user friendly
- Permanently flexible – will accommodate movement up to 12.5%
- No priming necessary for application to most materials; see the installation instructions for further details
- Suitable for most surfaces, included concrete, bricks, Leca, steel, wood, gypsum, glass, plastics and most non-porous surfaces.
- Hardens quickly, tack free after 1 hour
- 30 years working life

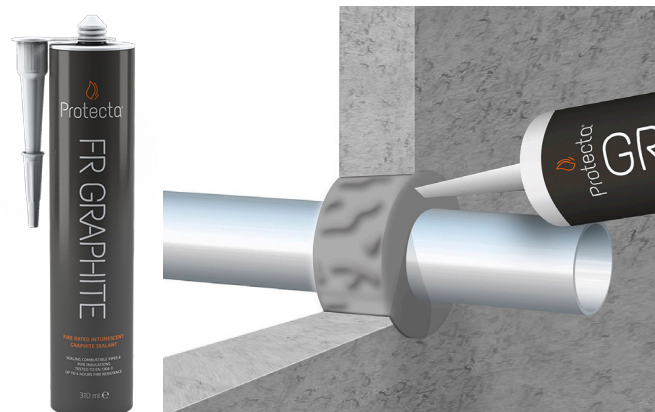
### Ratings

#### Sound rating:

- $R_w$  53 dB - Single sided seal  $\geq$  25mm depth.
- $R_w$  > 53 dB - Double sided seal  $\geq$  25mm depth.

#### Fire rating:

- Up to 4 hours depending on application.



### Technical data

Condition	Ready for use, water based graphite filler
Specific gravity	1.50 – 1.60
pH	8.00 – 9.50
Reaction To Fire	B – s1, d0
Flash point	None
Expansion rate	Approx. 1 : 25
Non-sticky	60 minutes
Film forming	30 minutes
Totally hardened	3 to 5 days depending on thickness
Flexibility	Low to medium 12.5% according to ISO 11600
Durability/service	Class Z2
Thermal conduct.	0.85 W/mK (+/- 3%) @ 20mm depth
Working life	30 years
Service temp.	-15 °C to +75 °C
Application temp.	+4 °C to +30 °C
Compatibility	Suitable for use with most materials, but should not be used in direct contact with bituminous
Limitations	Should not be used in permanently damp areas or in joints with excessive movement, joints at floor level or joints below the ground
Classification	CE-marked - Sealant for fire rated penetrations class EI 240
Colour	Dark grey (may turn darker during curing)
Packaging	Box containing 25 cartridges each 310 ml Box containing 25 eco-foils each 300 ml Box containing 12 foil packed each 600 ml Pallets 310 ml: 64 boxes per pallet equals 1600 pcs Pallets 600 ml: 91 boxes per pallet equals 1092 pcs

### Certificates







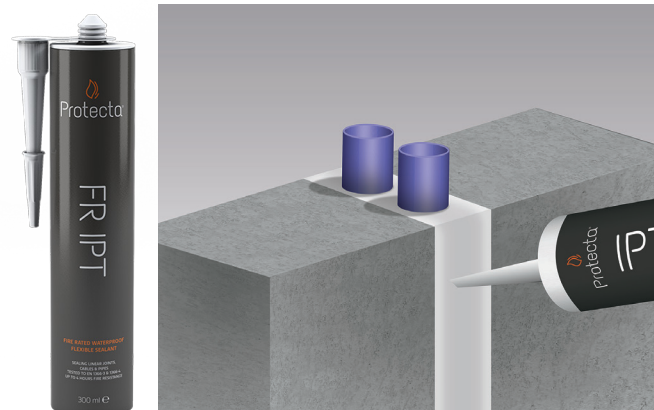
# Protecta® FR IPT

## Fire rated waterproof flexible sealant

### General description

Protecta® FR IPT is a high performance, professional quality, one part ready to use sealant and adhesive. Based on our innovative new Inert Polymer Technology, it is suitable for a wide variety of building trade applications including decorating, flooring, joinery, plumbing and tiling and out-performs conventional silicone, MSP, butyl and acrylic based products as a sealant and adhesive – the only sealant free from VOC emissions.

IPT is a non-reactive environmentally friendly chemistry that ensures compatibility with most building materials and has the unique property of moving dynamically to accommodate the natural or unexpected movements of sealed/bonded joints within a building, for long-lasting performance.



### Main uses

Protecta® FR IPT is designed for sealing joints, voids/irregular holes in walls, partitions and other structures, resulting in an airtight and watertight seal.

### Features

- Primerless adhesion
- Excellent adhesion to most common substrates
- Dynamic for low and high modulus applications
- 3D joint movement capability minimum 25%
- Can be used for all applications internally
- Fire rated up to 4 hours both integrity and insulation
- Resistant against radon (radioactive particles)
- Excellent slump resistance
- Only technology available that is VOC free
- Resistant to mould and mildew
- Low dirt pick up
- Non staining on susceptible surfaces
- Easy to apply and tool off
- Excess can be wiped before curing with a damp cloth
- Paintable
- Low shrinkage
- Does not yellow

### Ratings

#### Sound rating:

- Rw 62dB - Single sided seal  $\geq 12\text{mm}$  depth.
- > Rw 62dB - Double sided seal  $\geq 12\text{mm}$  depth.

#### Fire rating:

- Up to 4 hours depending on application.

### Technical data

Form	Ready to use thixotropic paste
Specific gravity	1,54 g/cm <sup>3</sup>
VOC	0 g/l
Durability w/ageing	Type X (UV / water) (pass)
Chemical resist.	Test passed (resistant)
Salt water immersion:	Test passed (resistant)
Microbiolog growth:	0 (no growth)
Hardness	Shore A 47
Shrinkage	15% volume single sided
Tensile properties	3,79 MPa (379 N/cm <sup>2</sup> )
Tensile elongation	270%
3D-tensile prop.	0,24 MPa (24 N/cm <sup>2</sup> )
3D-tensile elong.	106%
Tear properties	50%
Compression resist	434 N / 1569 MPa
Radon resistance	1.5mm thickness IPT gives Z = 2.9 - 108 s/m
Flashpoint	None
Reaction to fire	B – s1, d0
Fire resistance	Up to class EI 240
Tack free time	60 minutes maximum
Skin time	30 minutes maximum
Packaging	300ml cartridge, 300ml eco-foil or 600ml foil.
Colours	A range of colours available. Standard colours are white, light grey, grey, anthracite, brown and black.
Health & safety	No health hazard, indoor hygiene EMICODE EC1 <sup>PLUS</sup> classification, approved for BREEAM rated building projects.

### Certificates





# Protecta® FR Adhesive

High temperature resistant adhesive and filler

## General description

Protecta® FR Adhesive contains a water based inorganic polymer and filler and is designed to withstand temperatures greater than 1,200 °C. It is supplied as a ready to use thixotropic paste which exhibits excellent early grab and rapid bond strength.

After curing the product forms a cement with a permanent bond giving excellent adhesion in service.

## Main uses

Protecta® FR Adhesive can be used both as an adhesive and as a filler, with multiple usages where bonding or sealing very hot surfaces is required, or sustaining a seal or a bond within a fire situation without detachment.

## Features

- Ideal for bonding mineral fibre boards to steel, timber and concrete, adding an extra layer of protection against heat transfer
- Suitable for sealing joints on stoves, flues, grates and central heating boilers
- Useful for sealing annular gaps on high surface temperature pipes
- Can be used for sealing and repairing small cracks and holes in car exhausts systems - stops noise and gas emission leaks
- Suitable for most surfaces, including stone, brick, concrete, cement, plaster, timber, metals, stone wool, glass, paper, vitreous and ceramic surfaces and all inorganic materials (on plastics and painted surfaces, adhesion should be tested)
- Instant grab with no need for additional support (under correct applications)
- High bond strength when cured
- Designed to withstand temperatures above 1,200 °C
- Seals and repairs systems in situ
- Prevents escape of dangerous exhaust fumes from joints and repairs
- Fast setting - air cures to a hard finish especially when heated, tack free in approx. 1 hour, full cure possible in only 4 hours
- Slump resistant
- Shock and vibration resistant during service
- No priming necessary for application to most materials
- The fire performance specification of a bond has been derived when the adhesive has been let to cure for only 24 hours
- Product is practically odourless and VOC free
- Alkaline - does not attack acid sensitive substrates
- 12 months storage time (under correct conditions)
- 30 years working life (under correct conditions)

## Ratings

Fire rating:

- Up to 2 hours depending on application.



## Technical data

Condition	Ready for use paste
Cure system	Water loss, hardens in air and especially at raised temps.
Specific gravity	1.7 - 1.9
Flash point	None
Colour	Beige
Odour	Barely perceptible odour
Evaporation rate	Negligible
Solubility in water	Soluble
Viscosity	Viscous
pH	11.0
Solids content (%w/w)	> 70 %
Flexibility	None
Tack free	Approx. 60 minutes
Film forming	Approx. 10 minutes
Totally hardened	4 to 24 hours depending on temperature
Application temp.	+ 5 °C to + 30 °C (during application and curing)
Service temperature	- 50 °C to + 1,200 °C (avoid condensation on product)
Shelf life & storage	Up to 12 months when stored in unopened containers under cool dry conditions. Avoid frost and extremes of temperature
Working life	Minimum 30 years if protected from water/moisture contact
Packaging	Box containing 25 cartridges each 310 ml Box containing 12 foil packed each 600 ml Pails containing 10 ltr Pallets 310 ml: 64 boxes per pallet equals 1600 pcs Pallets 600 ml: 91 boxes per pallet equals 1092 pcs

## Certificates







# Protecta® FR Board

Stone wool insulation board with fire rated coating

## General description

Protecta® FR Board is designed to 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. Protecta® FR Board will also maintain the acoustic design performance in fire rated walls and floors.



## Main uses

Protecta® FR Board is designed to reinstate the fire resistance performance of all types of constructions with or without building service penetrations.

## Features

- Classified for all types of constructions with or without building service penetrations
- Simple and very quick to install
- Resists UV, humidity and frost (once cured)
- Easy to retrofit additional building services after installation
- Suitable for most surfaces, including concrete, bricks, masonry, steel, wood, gypsum, glass, plastic and most non-porous surfaces. Should not be used in direct contact with bituminous materials
- May be used in unlimited lengths in walls with heights up to 1200 mm and in floors with widths up to 800 mm.
- May be installed in drywalls with or without framing around the opening
- Halogen free with added fungicides
- Protecta® FR Board can be supplied with a smooth surface
- Precautions are required to be taken to prevent a person stepping onto a blank horizontal penetration seal



## Technical data

Condition	Ready for use, pre-coated boards
Density	Board: 160 kg/m <sup>3</sup> (150 – 170 kg/m <sup>3</sup> ) Coating: 1.3 – 1.4 kg/ltr
Durability	Y <sub>1</sub> - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y <sub>2</sub> , Z <sub>1</sub> and Z <sub>2</sub> .
Flash point	None
Non-sticky	Max. 75 minutes (sealant)
Film forming	Max. 25 minutes (sealant)
Totally hardened	3 to 5 days depending on thickness and temperature
Reaction to fire	Class D-s1, d0
Flexibility	Medium, 12.5%
Thermal conduct.	0.038 W/mK
Limitations	If the boards are to be used in permanently humid areas, Protecta® FR Coating should be applied over the sealant
Temperature range	-30°C to +80°C (when hardened)
Installation temp	+5°C to +50°C
Working life	Minimum 25 years if conditions are met
Colour	White surface, green core FR Acrylic: NCS 1202 – Y26R, RAL 9002
Packaging	FR Board 1-S 50x600x1200 mm: 80 pcs per pallet FR Board 2-S 60x600x1200mm: 72 pcs per pallet

## Ratings

### Sound rating:

- Rw 55dB - Single 50 or 60mm FR Board 2-S as linear seal ≤ 120mm wide.
- Rw 29 dB - Single 50 or 60mm FR Board 2-S as large seal.
- Rw 52 dB - Double 50 or 60mm FR Board 1-S or 2-S as large seal.
- Rw 53 dB - 50 or 60mm FR Board 1-S or 2-S with 50mm cavity, large seal.

### Fire rating:

- Up to 4 hours depending on application.

## Certificates





# Protecta® EX Mortar

## Fire rated expanding mortar

### General description

Protecta® EX 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.

### Main uses

The intended use of Protecta® EX Mortar is to reinstate the fire resistance performance of flexible wall, rigid wall and floor constructions where they are penetrated by various cables and metallic pipes.

### Features

- Classified in walls and floors of concrete, brick, gypsum etc.
- Suitable for cables, bundled cables, cable racks, cable trays, steel, copper, alupex, composite, plastic pipes and air ventilation ducts
- Simple to apply leaving a very smooth finish
- High degree of mechanical resistance; the seal is load bearing without reinforcement
- Tested for air permeability with excellent resistance to pressure
- 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 Protecta® FR Boards for these applications
- Fully set within 1 hour

### Ratings

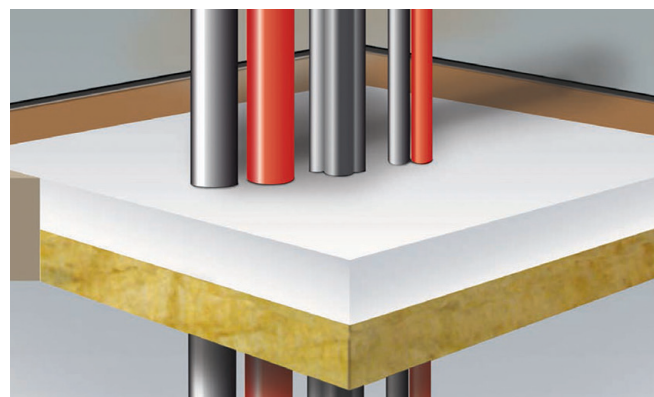
#### Sound rating:

- Rw 64 dB - Single sided cast  $\geq 50$  mm thick as linear seal.
- Rw 64 dB - Double sided cast  $\geq 25$  mm thick as linear seal.
- Rw 48 dB - Single sided cast  $\geq 50$  mm thick as large seal.
- Rw 48 dB - Double sided cast  $\geq 25$  mm thick as large seal.

#### Fire rating:

- Up to 4 hours depending on application.

### Certificates



### Technical data

Condition	Powder ready for mixing with water
Product consumption at 2:1 mix	Approx. 3.42 bags per m <sup>2</sup> @ 50mm depth Approx. 6.83 bags per m <sup>2</sup> @ 100mm depth
Dry density	About 900 kg/m <sup>3</sup> after full cure
Flash point	None
Reaction to fire	Class A1
Air permeability	Air, smoke and gas tight tested to EN 1026: 2016
Hardened	Less than 1 hour depending on the local climate
Totally hardened	Up to 30 days depending on thickness and temp.
Compressive strength	24 hours: 6-7 N/mm <sup>2</sup> . 28 days: 14-15.5 N/mm <sup>2</sup> .
Durability/service	Class Z <sub>2</sub> - Intended for use in internal conditions with humidity classes other than Z <sub>1</sub> , excluding temperatures below 0 °C (for higher classes please refer to Protecta Waterproofers)
Thermal conduct.	0.051 W/mK
Working life	30 years
Application temp.	+5 to +50 °C
Curing temp. (30 days)	0 to +50 °C
Service temp. after cure	0 to +80 °C, or down to -30 °C with Protecta Water-proofer
Compatibility	Suitable for use with most materials, but should not be used in direct contact with metals that may corrode
Classification	CE-marked – Fire seal for fire rated openings and penetrations class EI 240
Colour	Off white. May be coated with Painthouse® paint; allow at least 6 weeks cure before painting
Packaging	Bags of 20 litres Pails of 10 litres Bags: 63 on the pallet, equals approx. 800 kg Pails: 72 on the pallet, equals approx. 500 kg



# Protecta® FR Service Transit

Plastic tube with intumescent liner

## General description

Protecta® FR Service Transit consists of a circular high temperature plastic tube containing a graphite based intumescent lining material which expands upon heating to seal spaces or voids around cables and pipes, thus preventing the passage of flames, smoke and gases.

After installation of FR Service Transit, cables and pipes can be retrofitted without having to install a new fire seal. FR Service Transit is available in three different lengths, 150mm, 250mm and 400mm and the selection of which to use depends on the thickness of the supporting construction and the required fire classification.

## Main uses

Designed to maintain the fire resistance of walls and floors when these are breached by continuous cables and plastic pipes.

## Features

- Safe, easy and quick to fire stop service penetrations.
- Ideal for installations where it is likely that services will be inserted or replaced later on
- Ideal for installations in tight spaces where it will be difficult to install a normal fire seal at a later stage in the building construction
- A plug in the middle prevents penetration of cold smoke (see air permeability tests on the next page)
- New patented fast expanding graphite material
- For cables, plastic pipes and cables inside plastic pipes (conduits)
- Classified for fire sealing all types of constructions; drywalls, masonry or concrete walls, timber walls, concrete floors and timber floors
- Can be fitted several ways; cast in concrete, friction fitted in concrete, masonry or gypsum, or inserted in larger apertures with Protecta FR Acrylic, FR Board or EX Mortar
- Very high fire classifications up to 240 minutes for both integrity and insulation
- Certified for PVC-U, PVC-C, PE, LDPE, MDPE, HDPE, ABS, SAN+PVC and PP pipes plus all kinds of cables
- No emissions - environmentally and user friendly
- Unlimited storage time (under correct conditions)
- 30 years working life guarantee

## Ratings

Sound rating:

- Rw 42dB - Service Transit in all sizes.

Fire rating:

- 240 minutes for both integrity and insulation.



## Technical data

Technical Approval	EAD 350454-00-1104
Durability according to ETAG 026-2	Z <sub>2</sub> intended for use in internal conditions with humidity classes other than Z <sub>1</sub> , excluding temperatures below 0 °C
Tube	High temperature resistant plastic
Conditioning procedure	EN 13238:2010
Expansion ratio	17:1
Expansion pressure	65.4 N
Colour	White tube with anthracite inlay
Graphite weight	1.4 kg/m <sup>2</sup> per mm thickness
Graphite density	1409 kg/m <sup>3</sup>
Normal expansion time	Approx. 1 minute
Minimum expansion temperature	105 °C
Life	Under normal conditions; 30 years +
Sizes Available	Ø40 x 150mm, Ø63 x 150mm, Ø90 x 150mm, Ø110 x 150mm, Ø40 x 250mm, Ø63 x 250mm, Ø90 x 250mm, Ø110 x 250mm, Ø40 x 400mm, Ø63 x 400mm, Ø90 x 400mm and Ø110 x 400mm

## Certificates





# Protecta® FR Collar

Ready for use, steel shell with a graphite material

## General description

Protecta® FR Collars are designed to maintain the fire resistance of fire rated walls and floors where these are breached by service penetrations, and may be used in drywalls, timber, masonry or concrete walls and floors.

Each collar consists of a white or red coated circular steel shell that splits in two to fit around the service penetrations by means of a simple 'slide-lock' system. The steel shell contains a graphite based reactive material which reacts when exposed to heat from fire closing the openings left by the softening combustible material.

## Main uses

The intended use of Protecta® FR Collar is to reinstate the fire resistance performance of drywalls, timber, masonry or concrete walls and floors.

## Features

- High end fast expanding patented graphite material, certified Worldwide
- Classified for fire sealing all types of constructions such as drywalls, masonry and concrete walls, concrete and composite floors, and solid or cross-laminated timber walls and floors
- Classified for fire sealing all types of building service penetrations such as cable bundles, cable conduits, steel pipes, copper pipes, composite pipes, PVC pipes, PE pipes, ABS pipes, PP pipes and PEX pipe-in-pipes
- Metal and plastic pipes are classified with commonly used elastomeric pipe insulations, continuous through the fire seal
- Approved plastic pipe sizes range from smallest pipes available to Ø 400mm, each with a wide range of pipe wall thicknesses
- Approved with a single collar in some concrete and masonry wall applications, reducing cost
- Collars are available in two different heights for different fire classifications to maximise 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
- Fire classifications up to EI 240
- Tested and certified for U/U pipe end applications
- Very high sound insulation
- No VOC emissions - environmentally and user friendly
- Simple to install using widely available standard fixings
- Unlimited storage time (under correct conditions)

## Ratings

**Sound rating:**

- RW 58 dB - Collars installed as described in walls.

**Fire rating:**

- 240 minutes for both integrity and insulation.



## Technical data

Condition	Ready for use, steel shell with a graphite material
Shell	Powder coated 1mm steel
Conditioning procedure	EN 13238:2010
Expansion ratio	17:1
Expansion pressure	65.4 N
Colour	White/red shell with anthracite inlay
Graphite weight	1.4 kg/m <sup>2</sup> per mm thickness
Graphite density	1409 kg/m <sup>3</sup>
Normal expansion time	Less than 2 minutes
Minimum expansion temperature	105 °C
Installation temp.	+5 °C to +50 °C (sealant) / -20 °C to +50 °C (collar)
Service temp.	-20 °C to +70 °C (sealant) / -40 °C to +80 °C (collar)
Life	Under normal conditions; 30 years +
Sizes Available	Ø32mm/30mm, Ø32mm/50mm, Ø40mm/30mm, Ø40mm/50mm, Ø55mm/30mm, Ø55mm/50mm, Ø63mm/30mm, Ø63mm/50mm, Ø75mm/30mm, Ø75mm/50mm, Ø82mm/30mm, Ø82mm/50mm, Ø90mm/30mm, Ø90mm/50mm, Ø110mm/30mm, Ø110mm/50mm, Ø125mm/60mm, Ø140mm/60mm, Ø160mm/60mm, Ø200mm/60mm, Ø250mm/75mm, Ø315mm/75mm, Ø400mm/100mm.

## Certificates







# Protecta® FR Pipe Wrap

Fire rated pipe wrap

## General description

Protecta® FR 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 pipe insulation in a fire.

FR Pipe Wrap is installed completely around the pipes or insulation and secured with the self-adhesive tab. The annular space around the pipe wrap is sealed with Protecta® EX Mortar or Protecta® FR Board.

## Main uses

Protecta® FR Pipe Wrap is designed to maintain the fire resistance of fire separating walls and floors when these are breached by plastic pipes, conduits or metal pipes with continuous combustible insulation, and may be used in drywalls, masonry or concrete walls and concrete floors.

## Features

- For plastic pipe sizes from smallest pipes available to Ø400 mm with a wide range of pipe wall thicknesses
- For pipes with continuous combustible pipe insulation
- For plastic pipes with cables (conduits)
- Pipe wraps comes in two different types; ready made for most common diameters and in 25 metre rolls for all diameters
- Fire classifications up to 240 minutes for both integrity and insulation
- Certified for PVC-U, PVC-C, PE, LDPE, MDPE, HDPE, ABS, SAN+PVC and PP pipes plus numerous composite pipes
- Tested and certified for U/U pipe end applications
- Classified for fire sealing in all types of constructions
- Excellent sound insulation
- No VOC emissions - environmentally and user friendly
- Simple to install in both Protecta® FR Board and EX Mortar
- Unlimited storage time (under correct conditions)
- 25 years working life guarantee

## Ratings

### Sound Rating:

- Rw 52 dB - Pipe Wraps installed in FR Board.
- Rw 48 dB - Pipe Wraps installed in EX Mortar.

### Fire rating:

- Up to 4 hours depending on application.



## Technical data

Durability & life	Same as the product it is installed within; Protecta FR Board or EX Mortar
Installation	Refer to Installation Instructions for Protecta FR Board and EX Mortar
Conditioning procedure	EN 13238:2010
Expansion ratio	28:1
Expansion pressure	55 N
Colour	Anthracite
Graphite weight/density	1.3 kg/m <sup>2</sup> per mm thickness / 1300 kg/m <sup>3</sup>
Normal expansion time	Less than 10 minutes
Minimum expansion temp.	150 °C
Sizes Available	55mm, 82mm, 110mm, 125mm, 160mm, 200mm, 250mm, 315mm, 50mmx25m, 75mmx25m

## Certificates







# Protecta® FR Graphite Plate

Preformed self-adhesive intumescent plate for wall boxes

## General description

Protecta® FR Graphite Plate is a preformed self-adhesive intumescent plate, used to reinstate the fire resistance performance of flexible wall constructions when punctured with plastic wall boxes. It is used where the walls have been provided with apertures for the penetration of conduits and cables into socket boxes, on one or both sides of the wall.

Fitting FR Graphite Plate will reinstate the fire resistance performance of flexible wall constructions for up to 120 minutes. It also prevents the passage of fire through the electrical conduits between socket boxes.

FR Graphite Plate is available in both circular and square plates.

## Main uses

The Graphite Plate immediately reacts to fire through the heat and automatically expands and fills up the box, preventing fire and smoke from passing through.

## Features

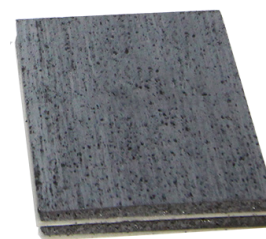
- Wall boxes can be fitted back to back
- Boxes can be fitted to steel and timber studs or noggins
- Up to 120 minutes of both integrity and insulation resistance
- Quick and easy to install
- For flexible walls with a minimum thickness of 75 mm
- Can be used on insulated and uninsulated walls
- Tested with a wide range of cables and conduits interconnected between boxes
- Tested with empty conduits between boxes for future cable transits
- High end fast expanding patented graphite material
- No VOC emissions - environmentally and user friendly
- Unlimited storage time (under correct conditions)
- 50 years working life

## Ratings

**Fire rating:**

- Up to 120 minutes for both integrity and insulation.

## Certificates



## Technical data

Technical Approval	EAD 350454-00-1104
Fire Test - EN13501-2	EI 30 - 120
Durability - ISO 8339	Z <sub>2</sub> intended for use in internal conditions with humidity classes other than Z <sub>1</sub> , excluding temperatures below 0 °C
Conditioning procedure	EN 13238:2010
Expansion ratio	17:1
Expansion pressure	65.4 N
Colour	Light Grey with silver flecks
Texture	Textured surface
Finish	Matt finish on one side, other side satin finish
Thickness	Approximately 3.8mm
Weight per unit area / length	5.1 Kgm <sup>2</sup>
Density	1,409 Kgm <sup>3</sup>
Optimum expansion time	2 minutes
Optimum expansion temp.	550 °C
Usage	Supplied ready to fit
Packaging	Supplied packed in boxes, normally 10 plates/box
Life	Under normal conditions; 50 years +



# Protecta® FR Damper

Ventilation duct with fire stopping properties

## General description

Protecta® FR Damper consists of a steel casing and contains horizontal steel blades, treated with a technically advanced heat expanding graphite which closes off the whole damper in a fire. The aperture surrounding the dampers are fire sealed with Protecta® fire stopping products.

The damper can be installed in the fire seal and the ventilation ducting attached, or the damper can be connected to the ducting and then fire sealed.

## Main uses

Protecta® FR Damper is used to fire proof ventilation ducts which penetrate fire rated constructions preventing the passage of fire and smoke (surrounding and inside the ventilation duct).

## Features

- Maintenance free and no electrical connections necessary.
- The same damper can be installed in drywalls, masonry and concrete walls, timber walls, concrete floors and timber floors.
- An aperture can include several dampers and in addition, technical services such as cables, cable trays and pipes.
- The product seals against penetration of fire and smoke, surrounding and inside the ventilation duct.
- Closes in the area where the fire is located (but not elsewhere), allowing the ventilation system to extract smoke from areas that are not on fire.
- Keeps the temperature in the duct network lower than 120°C, protecting fans and sensitive units in the system.
- Insulation of ducts is not necessary.
- Service life of more than 50 years; the damper will last the same life cycle as the ventilation system.
- The dampers are designed to fit standard ducting equipment, enabling the ducting system installer to easily fit the dampers.
- The dampers are attached to the inside of the ducts, giving the benefit of space saving.
- The dampers are only 15 cm long and bends can be connected right behind the fire seal (also available to order in other sizes).
- The damper can be attached to a vent on one side.

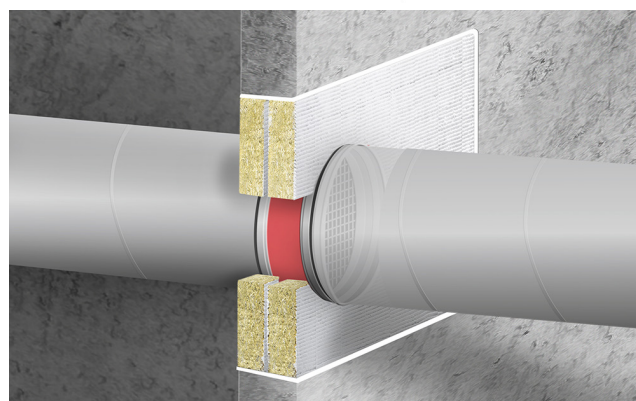
## Ratings

### Sound Rating:

- = Rw 67 dB - FR Putty Cord in wall or floor.
- > Rw 62 dB - FR Acrylic in wall or floor.
- = Rw 52 dB - FR Board in wall.
- > Rw 48 dB - EX Mortar in floor.

### Fire rating:

- Up to 120 minutes for both integrity and insulation.



## Technical data

Appearance	Ready manufactured in steel and graphite
BREEAM	Approved, EC1 <sup>PLUS</sup> or M1 on all fire seals
Interior climate, installed	Z <sub>2</sub> : Relative air moisture up to 85% and temperatures between 5 and 40 °C
Trigger-temperature in fire	100 °C
Temperature, full closure	160 °C
Time to full closure	From 50 seconds to 2 minutes
Expansion rate graphite	15.5 to 17
Density graphite	2.6 kg per ltr
Thickness graphite	1.6 mm
Leakage classification	Class C according to EN 1751 (circular)
Free air opening	Between 84.2% and 85.4%
Pressure in fire	FR Damper resists minimum 300Pa
Standard for connections	EN 1506:2007
Standard for fire testing	EN 1366-12:2014 & EN 1363-1:2012
Standard for aerodynamics	EN 1751:2014
Standard for sound levels	EN ISO 5135:1998
Flash point	None
Life span	Under normal conditions; 50 years +
Installation temperature	+5 °C to +50 °C
Service temperature	-40 °C to +80 °C
Colour	Galvanized steel with section of red colour to identify placement of the fire seal
Packaging	1 damper per box

## Certificates





# Protecta® Interior Paint FR-1

Acrylic based intumescent interior paint

## General description

Protecta® Interior Paint FR-1 is a decorative paint with special properties to protect against spread of fire and protect people's health against harmful chemicals. It is a hard-wearing interior acrylic paint, formulated to the highest specification and offering unsurpassed intensity of colour.

All colours are water-based and provide a smooth, rich and non-reflective finish. It is perfect for a contemporary look and to hide surface imperfections. Interior Paint FR-1 is a one-layer system that normally requires no primer, no top coat, is easy to use and very easy to clean up.

## Main uses

Ideal for use in communal areas (e.g. public buildings, schools and hospitals) on broad walls and timber as it insulates against heat and prevents the spread of fire unlike conventional paint systems.

## Features

- CE-marked and authorized for use by Transport for London; London Underground
- Best possible reaction to fire classification turning combustible surfaces fireproof in both walls and ceilings, perfect for protecting wood.
- Painting wooden particle walls transforms them from a combustible non-fire rated wall to a fire-classified wall that can be used as part of a fire compartment system.
- Painting on top of existing paints, both water and solvent based will protect the old surfaces against fire making FR-1 ideal to upgrade fire safety in existing buildings without having to tear down and rebuild construction elements.
- Non-toxic and emission free with near zero VOC and best possible emission classifications makes the paint perfect for anyone not wanting to breathe toxic chemicals and especially people suffering from asthma, allergies or any other breathing related diseases.
- Durable, robust and designed to last, can be cleaned with a damp cloth without the risk of washing off the paint. Durability is especially important on surfaces where abrasion occurs, for instance walls in hallways and staircases. The paint is not designed for use on floor surfaces.
- Excellent coverage with a spray applied one-coat system which is cost effective saving paint and especially application time. Brush and roller applications can also be performed, often in only two coats. No topcoat needed.
- Suitable for most surfaces, including concrete, bricks, masonry, primed steel, wood, gypsum, plastics and most non-porous surfaces, in most cases without a primer.



## Technical data

Type	Acrylic based intumescent paint
Cure system	Water loss
Health and safety	Non-hazardous
Tests standards	EN 13823 and EN ISO 11925
Classification standards	EN 13501-1 & 2 and Regulation (EU) 2016/364
Colour	White base or per colour chart, matt
Specific gravity	1.40g/cm <sup>3</sup>
Solids (theoretical)	> 70%
VOC	0.0001 g/L
Touch dry	1 hour at ~22°C & 50% RH *
Hard dry	1.5 hour at ~22°C & 50% RH *
Application conditions	Minimum +10°C and humidity lower than 80%
Temperature range	-30°C to +80°C (when hardened)
Durability	Type Z <sub>2</sub> internal conditions with humidity lower than 85% R.H, excluding temperatures below 0°C
Work life	12 years
Packaging	10 litre pails, 200 litre drums, 1000 litre IBCs

## Ratings

Fire rating:

- Up to 30 minutes depending on application.

## Certificates





# Protecta® Steel Paint FR-1

Acrylic paint for fire protection of structural steel

## General description

Protecta® Steel Paint FR-1 is a single component acrylic paint, used for up to 60 minutes fire protection of loadbearing structural steel that normally requires no primer, no top coat, is easy to use and very easy to clean up.

The paint is formulated with fire and heat resistant chemicals, combined with high intumescent (expanding) pigments and fillers, which gives optimal resistance against fire. The paint is formulated to provide the lowest emissions possible, protecting both people's health and the environment against harmful chemicals.

It is a hard-wearing interior acrylic paint, formulated to the highest specification and offering unsurpassed intensity of colour. All colours are water-based and provide a smooth, rich and non-reflective finish. It is perfect for a contemporary look and to hide surface imperfections.

## Main uses

Protecta® Steel Paint FR-1 can protect all common steel section sizes including hollow sections. Suitable for internal and external use.

## Features

- Can be supplied either in a white base or in a colour of your choice mixed using our in-house colour tinting machine. Tinted paint has been fire tested and is part of the certified product.
- Non-toxic and emission free with near zero VOC and best possible emission classifications makes the paint perfect for people suffering from asthma, allergies or any other breathing related diseases.
- Durable, robust and designed to last, can be cleaned with a damp cloth without the risk of washing off the paint.
- Excellent coverage with a spray applied system. Brush and roller applications can also be performed. No topcoat needed.
- Halogen free with added preservatives that resist bacterial and fungal growth.
- The paint's durability is expected to be at least 12 years making it a cost effective option when compared with normal paints with limited durability.

## Ratings

Fire rating:

- Up to 60 minutes depending on application.

## Certificates



## Technical data

Condition	Single component acrylic intumescent paint. Ready for use
Colour	White base plus 28 decorative, water-based colours. See separate Colour Chart.
Density	Approx. 1.43 kg/ltr
Durability	Z <sub>2</sub> , intended for use in internal conditions with humidity classes other than Z <sub>1</sub> , excluding temperatures below 0 °C (C1 or C2 according to EN ISO 12944-2). Higher classes achievable with top-coat.
Volume solids	72.6 % (ASTM D2369)
V.O.C.	< 1 g/L (below limit of detection) (ASTM D2369)
Application method	Spray, brush, roller
Dilution	Preferably not. Max 10% water.
Temperature range	-30°C to +80°C (when fully cured, up to 4 weeks)
Installation temp.	+5°C to +50°C
Working life	Minimum 12 years if conditions are met
Test standard	Loadbearing structural steel: EN 13381-8:2013. Compliance; primers & colours: EAD 350402-0001106.
Packaging	20 litre / approx. 29 kg pails: 36 pcs per pallet





# Protecta® FR Coating

## Fire rated coating

### General description

Protecta® FR Coating spray grade, is an ablative sealant coating designed to enhance, seal and fire protect mineral fibres. It is based on a durable polymer system with inert fillers, non-halogenated fire retardants and a preservative to resist microbial attack.

FR Coating is designed to be applied via spraying directly onto mineral fibres. The coating dries to give a sound, flexible white surface finish. During installation of mineral fibres, the cured sealant coating reduces de-lamination and increases surface stability for adhesive and fixing sealant application.

### Main uses

The coating applied on mineral fibres is designed to prevent the spread of fire and smoke through openings in fire rated walls and floors, also where openings are formed to allow the installation of multiple building services. The system will also maintain the acoustic design performance.

### Features

- The coating applied on mineral fibres is classified for all types of constructions with or without building service penetrations
- Simple and very quick to install
- Resists UV, humidity and frost (once cured)
- Permanently flexible - will accommodate high movements in the construction it has been fitted within
- Easy to retrofit additional building services after installation
- Suitable for most surfaces, including concrete, bricks, masonry, steel, wood, gypsum, glass, plastics and most non-porous surfaces
- May be used in unlimited lengths in walls with heights up to 1,200mm and in floors with widths up to 800mm
- May be installed in insulated or un-insulated drywalls with or without framing around the opening
- Halogen free with added fungicides

### Ratings

#### Sound Rating:

- Rw 55 dB - Linear seal ≤ 120mm wide with Protecta FR Coating 1.0mm WFT on both sides of minimum 50mm thick stone wool with density minimum 150kg/m<sup>3</sup>

#### Fire rating:

- Up to EI 180 depending on application.



### Technical data

Form	Ready to use viscous paste
Cure system	Water loss
Colour	White
Non-sticky	Max. 75 minutes
Film forming	Max. 25 minutes
Totally hardened	3 to 5 days depending on thickness and temperature
Reaction to fire	Class D-s1, d0
Flexibility	High; > 25%
Density	1.3 – 1.4 kg/ltr
pH	8.5 - 9.2
Flash point	None
Solids Content	> 58 % (w/w)
Temperature range	-30 °C to +80 °C (when hardened)
Application temp.	+5 °C to +50 °C
Durability	Y <sub>1</sub> - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y <sub>2</sub> , Z <sub>1</sub> and Z <sub>2</sub> .
Working life	Minimum 25 years if conditions are met

### Certificates







# Protecta® Service Coat FR-1

Fire rated coating for cables, cable trays and metal pipes

## General description

Protecta® Service Coat FR-1 is an acrylic based intumescent coating designed to increase the fire resistance of fire seals and preventing the spread of fire along industrial cables runs whilst maintaining circuit integrity for the duration of the fire.

The coating is non-toxic, VOC emission free, durable and can be applied in a thin coat, saving both time and money. It is a hardwearing coat, formulated to the highest specification and offering unsurpassed intensity of colour.

## Main uses

Protecta® Service Coat FR-1 provides excellent fire resistance, protecting cables, cable trays and metal pipes.

## Features

- A high performance, fire resistant coating, designed to be applied as a thin film on services protecting cables, cable trays and metal pipes in a fire.
- Available either in a white base or in a range of colours.
- Once a protective topcoat has been applied, Protecta® Service Coat FR-1 can be used in exterior applications.
- Non-toxic and emission free, with near zero volatile organic compounds (VOCs) and best possible emission classifications available.
- Durable, robust and designed to last; can be cleaned with a damp cloth without the risk of washing off the coating.
- Achieve excellent coverage with a spray applied thin coat system. Brush and roller applications can also be performed, often in only a few coats. Topcoat is normally not necessary.
- Suitable for most surfaces, including rubber, plastics, concrete, bricks, masonry, primed steel, wood, gypsum and most non-porous surfaces, in most cases without a primer.
- Halogen free with added preservatives that resist bacterial and fungal growth.
- The coating's durability is expected to be at least 12 years, making it a cost effective option in comparison to normal paints.

## Ratings

Fire rating:

- Up to 90 minutes depending on application.

## Certificates



## Technical data

Type	Acrylic based intumescent coating
Cure system	Water loss
Health and safety	Non-hazardous
Tests standards	International Electrotechnical Commission 60331 and EuroNorm 1366
Classification standards	EN 13501-1 and Regulation (EU) 2016/364
Reaction to fire	B-s1,d0
Colour	White base, matt
Specific gravity	1.4g/cm <sup>3</sup>
Solids (theoretical)	70.1%
VOC	0.0001 g/L
Touch dry	1 hour at ~22°C & 50% RH *
Hard dry	1.5 hour at ~22°C & 50% RH *
Application conditions	Minimum +10°C and humidity lower than 80%
Temperature range	-30°C to +80°C (when hardened)
Durability	Without topcoat: Type Z <sub>2</sub> internal conditions with humidity lower than 85% R.H, excluding temperatures below 0°C. With topcoat: According to the chosen product
Work life	12 years
Packaging	3 litre pails, 200 litre drums, 1000 litre IBCs



# Protecta® Waterproofer

Water repellent for Protecta Mortar, brickwork, concrete, plaster & façades

## General description

Protecta® Waterproofer is a high viscosity cream-like impregnating fluid based on alkyl-alkoxy-silanes. When applied to cured Protecta® EX Mortar, the Waterproofer protects the surface by making it water repellent. The Waterproofer will also protect other porous substrates such as stone, brickwork and concrete in facades.

Protecta® Waterproofer also provides a comprehensive protection against efflorescence and decomposition caused by water-soluble pollutants, frost damage and attack by moulds and bacteria on damp substrates.

The construction material's physical properties, especially its water vapour permeability (Sd-value) is barely affected by application of Protecta® Waterproofer.

## Main uses

Protecta® Waterproofer is suited to be used with any kind of mineral substances that exhibit a minimum amount of absorption capacity such as Protecta® EX Mortar, brickwork concrete, plaster and façades.

## Features

- Long-lasting and reliable
- Simple, drip-free application with excellent workability
- Water and VOC-free
- High concentration of active ingredients
- Alkaline stable
- Does not build up a film
- Extraordinary penetration depth
- Can be applied without any loss, in one layer and without sag
- Causes no discoloration or intensification of masonry surfaces
- Protecta® Waterproofer can be used on many building materials, including Protecta® EX Mortar and other mortars, plaster, porous concrete and concrete (perfectly suited for concrete repair), limestone and natural stone and Industrial made bricks and clinker

## Certificates



## Technical data

Type	High viscosity cream, based on silanes and siloxanes
Colour	Milky white, becoming transparent
Specific gravity	0.80g/cm <sup>3</sup>
Penetration time	30 minutes to several hours
Application conditions	Between +5°C and +35 °C on dry surfaces and for 24 hours after application
Temperature range	-50 to +45 °C (fully absorbed)
Approval	CE marked to EN 1504-2:2004 - Surface protection products; hydrophobic impregnation
Expected work life	At least 20 years under normal environmental conditions
Packaging	3 litre pails, 200 litre drums, 1000 litre IBCs



# Protecta® FR Putty Pads

Fire rated non-setting pads for electrical sockets and tap water wall boxes

## General description

Protecta® FR Putty Pads are an easy to apply fire and sound rated sealant supplied as a non-setting pad. The pad is hand workable, reusable and re-serviceable due to its non-setting properties.

FR Putty Pads for tap water wall boxes will reinstate the fire rating of the partition for 90 minutes preventing the passage of smoke and flames in a fire, and sound and air movement during service life, through the tap water wall boxes, into the cavity.

Putty Pads for electrical sockets will reinstate the fire rating of the partition for up to two hours preventing the passage of smoke and flames in a fire, and sound and air movement during service life, through the electrical socket, into the cavity.

## Main uses

Protecta® FR Putty Pads are shaped for use on both single and double wall box installations in dry lining walls and tap water wall boxes.

## Features

- Supplied in different shapes and forms for multiple application areas
- Certified in many areas around the World, for instance in the EU, EEA, UK, UAE, New Zealand and Australia
- Installation is very simple and quick
- 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 to other sizes if necessary
- Provides excellent sound insulation
- Tested for air permeability up to 1000Pa
- Environment- and user friendly; contains no solvents
- Contains a low pressure intumescent for optimal fire protection
- Working life of at least 50 years

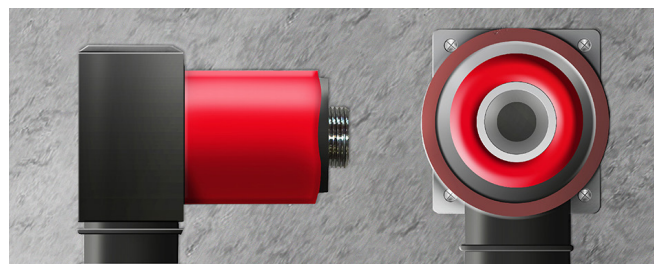
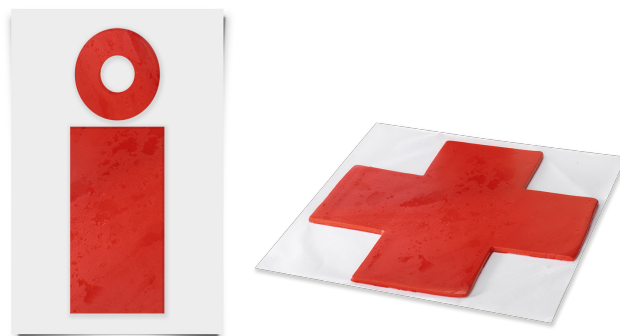
## Ratings

### Sound Rating:

- Rw 67 dB - Putty Pads for sockets.

### Fire rating:

- Up to 120 minutes depending on application.



## Technical data

Condition	Ready for use, silicone based putty
Durability/service	Class Z <sub>2</sub> : Intended for uses in internal conditions with humidity lower than 85 % RH excluding temperatures below 0°C, without exposure to rain or UV
Density	1.55 g/ml
Application temperature	+4 °C to +40 °C
Service temperature	-70 °C to +120 °C
Working life	Under normal conditions; 50 years
Colour	Red
Form	Pads pre-shaped to its intended use
Packaging	For Tap water wall boxes: 4 kits per box For Electrical sockets: 20 units per box

## Certificates





# Protecta® FR Putty Cord

Fire rated non-setting cord

## General description

Protecta® FR Putty Cord is designed to be easily fitted around service penetrations where the gap around the services is very small. Also, it's perfect for where there are no gaps at all and it is impossible or difficult to use conventional fire rated sealant due to the required depth and backing material.

Protecta® FR Putty Cord is an easy to apply fire and sound rated sealant supplied as a non-setting putty. The cord is hand workable, re-serviceable and re-useable due to its non-setting properties. They are supplied in pre-shaped moldable cords which are push-fit self adhesive.

## Main uses

FR Putty Cord can be retrofitted where it is difficult to practically install the approved depths of sealant and backer material around cable and pipe penetrations.

## Features

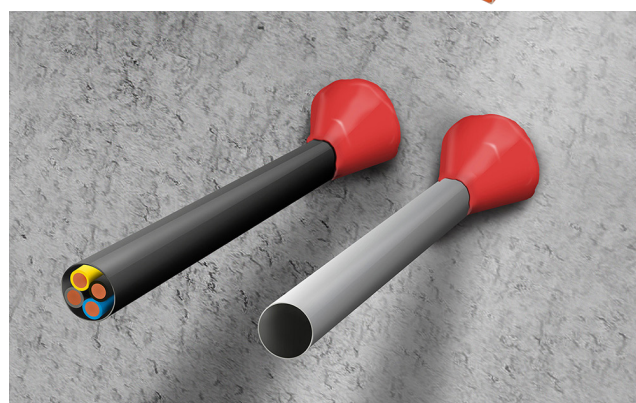
- Supplied in different shapes and forms for multiple application areas
- Certified in many areas around the World, for instance in the EU, EEA, UK, UAE, New Zealand and Australia
- Installation is very simple and quick
- Stops penetration of both cold and hot smoke
- Self-adhesive and very easy to apply without tools
- Unaffected by moisture; can be used in wet rooms
- Never hardens and ensures a tight fit
- Can be reshaped to other sizes if necessary
- Provides excellent sound insulation
- Tested for air permeability up to 1000Pa
- Environment- and user friendly; contains no solvents
- Contains a low pressure intumescent for optimal fire protection
- Working life of at least 50 years
- Patented solution

## Ratings

Fire rating:

- Up to 120 minutes depending on application.

## Certificates



## Technical data

Condition	Ready for use, silicone based putty
Durability/service	Class Z <sub>2</sub> : Intended for uses in internal conditions with humidity lower than 85 % RH excluding temperatures below 0°C, without exposure to rain or UV
Density	1.55 g/ml
Application temperature	+4 °C to +40 °C
Service temperature	-70 °C to +120 °C
Working life	Under normal conditions; 50 years
Colour	Red
Form	Ø15 mm x 20 cm cord
Packaging	5 cords per box

# Application overview

Type of penetration	Seals without penetrations						Cables						Steel pipes		Copper pipes		Alupex pipes		ventilation ducts		Plastic Pipes										
	30mm	50mm	100mm	300x300mm	1200x2400mm	1200x∞mm	≤Ø 21 single	≤Ø 21 bundled	≤Ø 50 single	≤Ø 50 bundled	≤Ø 80 single	≤Ø 80 bundled	Trays & ladders	Without insulation	≤Ø 325	Without insulation	≤Ø 54	Without insulation	≤Ø 75	≤1.2m x 1.7m	≤Ø 1250	≤Ø 32	≤Ø 40	≤Ø 75	≤Ø 110	≤Ø 160	≤Ø 400	Conduits	PEX pipe-in-pipe		
FR PUTTY CORD	x	x	x	x	x	x	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	x	x	x	x	x	x	x	
	x	x	x	✓	x	x	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	x	x	x	x	x		
FR COLLAR	x	x	x	x	x	x	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	x	x	x	x	x	x	
FR ACRYLIC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	x	x	x	x	x	
FR GRAPHITE	x	x	x	x	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
FR IPT	✓	x	x	x	x	x	x	x	x	x	x	x	x	✓	x	x	x	x	x	x	x	✓	x	x	x	x	x	x	x	x	
FR FOAM	✓	x	x	x	x	x	x	x	x	x	x	x	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
EX MORTAR	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FR BOARD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FR PIPE WRAP	x	x	x	x	x	x	x	✓	✓	x	x	x	x	x	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SERVICE TRANSIT	x	x	x	x	x	x	✓	✓	✓	✓	✓	✓	x	x	x	x	x	x	x	x	x	✓	x	x	x	x	x	x	x	x	
FR DAMPER	x	x	x	x	x	x	✓	✓	✓	✓	✓	✓	x	x	x	x	x	x	x	x	✓	x	x	x	x	x	x	x	x	x	

✓ = Yes    x = No    <sup>1)</sup> With Protecta® FR Pipe Wrap.    <sup>2)</sup> With Protecta® FR Damper.





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