



TECHNICAL DATA SHEET

General Product Description

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. Protecta® FR Acrylic will also maintain the acoustic design performance in walls and floors.

Protecta® FR Acrylic cures when it is subjected to atmospheric conditions, however it will retain a degree of elasticity for joint movement. Under fire exposure, Protecta® FR Acrylic creates a robust fire seal by the formation of a durable intumescent char.

Protecta® FR Acrylic can be used with a suitable filling material, i.e. stone wool or Protecta® Backing material in order to secure correct width to depth ratio and to reduce the shrinking of the sealant during curing. Minimum depth and maximum width of the joints are included in the installation instructions. Thermal activation takes place at about 180°C when the material will expand (intumesce) and prevent the passage of fire and smoke for periods up to and beyond 4 hours.

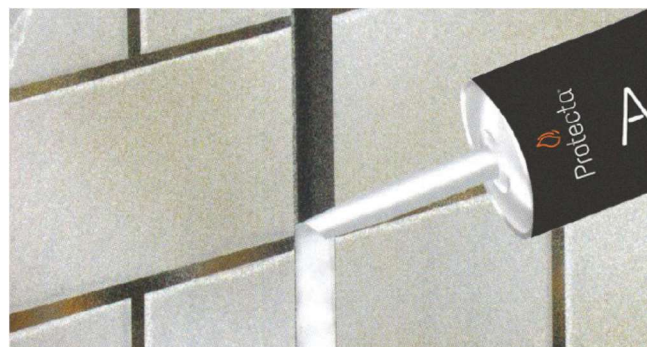
Properties

- High end formula, certified Worldwide
- Classified for fire sealing all types of constructions and building service penetrations
- Very high sound insulation
- Low emissions - environmentally and user friendly
- Simple to apply with a smooth surface finish
- Permanently flexible – will accommodate movement up to 12.5%
- No priming necessary for application to most materials
- Suitable for most surfaces, included concrete, masonry, steel, gypsum, glass, plastics and most non-porous surfaces
- Hardens quickly, tack free after 1 hour (the fire performance specification of the joint filler has been derived when the joint filler has been let to cure for a month)
- 18 months storage time (under correct conditions)
- 30 years working life

Sound Insulation

Description	Sound reduction
Single sided seal ≥12mm depth	62 dB
Double sided seal ≥12mm depth	> 62 dB

Protecta® FR Acrylic has been tested at EXOVA BM Trada (UKAS accredited); according to EN ISO 10140-2:2010. Usage of any backing material is optional, due to the tests being conducted with sealant only.



Emission data (indoor air quality)

Compound	Emission rate after 3 days	Emission rate after 4 weeks
TVOC	83 µg/m ³	< 5 µg/m ³
TSVOC	n.d.	< 5 µg/m ³
VOC w/o NIK	n.d.	< 5 µg/m ³
R Value	n.d.	< 1
Formaldehyde	< 3 µg/m ³	n.d.
Acetaldehyde	< 3 µg/m ³	n.d.
Sum for+ace	< 0.002 ppm	n.d.
Carcinogenic	< 1 µg/m ³	< 1 µg/m ³

n.d. or < means not detected

Protecta® FR Acrylic complies with the requirements of GEV and the results correspond to the EMICODE emission class EC 1^{PLUS} which is the best possible environmental and indoor hygiene health protection mark. Tested by Eurofins Product Testing, report number G12870B.

Technical Data

Condition	Ready for use, acrylic based filler
Specific gravity	1.56 – 1.60
Flash point	None
Reaction to fire	Class D-s1, d1
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% according to ISO 11600
Durability/service	Class Z ₂
BWR 3	Use category IA1, S/W3
Thermal conduct.	0.845 W/mK (+/- 3%) @ 20mm depth
Storage	18 months stored in unopened cartridges. To be stored in temperatures between 10°C and 30°C
Working life	30 years
Service temperature	-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	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 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



Resistance to Fire – Linear Seals

Construction	Seal position	Minimum seal depth	Backing material	Maximum seal width	Fire resistance
Flexible walls comprise gypsum, masonry, aerated concrete or concrete (≥ 75 mm thick)	Both sides against steel partition head track	12.5 mm	None necessary	25 mm	EI 45 (E 60)
	Both sides against steel partition side track	12.5 mm	None necessary	15 mm	EI 45 (E 60)
Flexible walls comprise gypsum, masonry, aerated concrete or concrete (≥ 100 mm thick)	Both sides against steel partition head track	12.5 mm	None necessary	25 mm	EI 90 (E 90)
		12.5 mm	Mineral stone wool minimum 12.5mm deep	30 mm	EI 120 (E 120)
		25.0 mm	None necessary	30 mm	EI 120 (E 120)
	Both sides against steel partition side track	12.5 mm	None necessary	15 mm	EI 90 (E 90)
	Both sides in vertical seals	12.5 mm	Mineral stone wool minimum 20mm deep	30 mm	EI 120 (E 120)
Rigid walls comprise masonry, aerated concrete or concrete, within walls or between the head of walls and the soffit of floor slabs (≥ 150 mm thick)	Single sided in horizontal seals	25.0 mm	Mineral stone wool minimum 20mm deep	30 mm	EI 60 (E 240)
		10.0 mm	Mineral stone wool minimum 60mm deep	50 mm	EI 60 (E 240)
		25.0 mm	Protecta Mineral Fibre BIO minimum 48mm deep	30 mm	EI 120 (E 240)
	Single sided in vertical seals	10.0 mm	Mineral stone wool minimum 60mm deep	50 mm	EI 120 (E 120)
	Double sided in horizontal or vertical seals	15.0 mm	Mineral stone wool minimum 20mm deep	30 mm	EI 240 (E 240)
Rigid floors comprise aerated concrete or concrete within floors or between floors and walls (≥ 150 mm thick)	Single sided soffit face	25.0 mm	Protecta Mineral Fibre BIO minimum 25mm deep	100 mm	EI 60 (E 120)
	Single sided top face	25.0 mm	Protecta Mineral Fibre BIO minimum 25mm deep	100 mm	EI 180 (E 180)
		10.0 mm	Mineral stone wool minimum 90mm deep	100 mm	EI 240 (E 240)
	Double sided top and soffit	15.0 mm	Mineral stone wool minimum 25mm deep	100 mm	EI 120 (E 120)
		15.0 mm	Mineral stone wool with density ≥ 140kg/m ³ minimum 25mm deep	100 mm	EI 180 (E 180)
		15.0 mm	Mineral stone wool minimum 25mm deep	30 mm	EI 240 (E 240)