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Technical Data Sheet



Firewin

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Knauf Fire protection acrylic - FPA

Product description

Knauf Fire protection acrylic - FPA is a fire rated single component partly flexible acrylic mastic specially designed for fire sealing. The sealant expands when heated and produces an efficient seal against fire, smoke and gas.

Storage

Store dry in the original packaging.

Storage temperature: between 10°C and 30°C

Storage stability: 18 months stored in unopened cartridges, see imprint on cartridge for expiry date

Method of delivery

Knauf Fire protection acrylic FPA - 310 ml cartridge, article no. 651009

Knauf Fire protection acrylic FPA - 600 ml foil, article no. 651011

Scope of application

Knauf Fire protection acrylic - FPA 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. It will also maintain the acoustic design performance in walls and floors.

Knauf Fire protection acrylic FPA cures when it is subjected to atmospheric conditions, however it will retain a degree of elasticity for joint movement. Under fire exposure FPA creates a robust fire seal by the formation of a durable intumescent char.

Thermal activation takes place at about 180°C when the material will expand and prevent the passage of fire and smoke for up to 4 hours.

Properties

- Classified for fire sealing all types of construction and building service penetrations
- Easy to apply and has a smooth surface finish
- Movement capability up to 12.5%
- 18 months storage life (under correct conditions)
- 30 years working life
- Fire resistance up to EI240
- ETA 18/0933 and ETA 18/0932
- EAD 350141-00-1106 and EAD 350141-00-1104

Technical details	
Approval:	ETA-18/0933
Condition	Ready for use, acrylic based filler
Reaction to fire	Class D-s1, d1
Flash point	None
Specific gravity	1.56 - 1.60
Expansion in fire	1:2-3
Film forming	25 minutes maximum
Non-sticky	75 minutes maximum
Totally hardened	3 to 5 days depending on thickness and temperature
Flexibility	12.5% according to ISO 11600
Durability/service	Class Z ₂
BWR3	Use category IA1, S/W3
Thermal conduct	0.845 W/mK (+/- 3%) @ 20mm depth
Continuous contact or ambient temperature:	≤ 80°C
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 temperature	+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
Colours	White, grey or red

Note

FPA 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.

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	< 0.002ppm	n.d.
Carcinogenic	(< 1 µg/m ³)	(< 1 µg/m ³)
n.d. or < means not detected		

Sound insulation:

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

FPA has been tested at 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.

Safety:

Please observe the EC Safety Data Sheet.

Resistance to fire - Linear seals					
Construction	Seal position	Min seal depth	Backing material	Max seal width	Fire resistance
Flexible walls comprise gypsum, masonry, aerated concrete or concrete (≥ 75 mm thick)	Both sides against steel partition head track	12.5mm	None necessary	25mm	EI 45 (E 60)
	Both sides against steel partition side track	12.5mm	None necessary	15mm	EI 45 (E 60)
Flexible walls comprise gypsum, masonry, aerated concrete or concrete (≥ 100 mm thick)	Both sides against steel partition head track	12.5mm	None necessary	25mm	EI 90 (E 90)
		12.5mm	Mineral stone wool minimum 12.5mm deep	30mm	EI 120 (E 120)
	25.0mm	None necessary	30mm	EI 120 (E 120)	
	Both sides against steel partition side track	12.5mm	None necessary	15mm	EI 90 (E 90)
	Both sided in vertical seals	12.5mm	Mineral stone wool minimum 20mm deep	30mm	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	25.0mm	Mineral stone wool minimum 20mm deep	30mm	EI 60 (E 240)
		10.0mm	Mineral stone wool minimum 60mm deep	50mm	EI 60 (E 240)
		25.0mm	Mineral Fibre BIO minimum 48mm deep	30mm	EI 120 (E 240)
	Single sided in vertical seals	10.0mm	Mineral stone wool minimum 60mm deep	50mm	EI 120 (E 120)
	Double sided in horizontal or vertical seals	15.0mm	Mineral stone wool minimum 60mm deep	30mm	EI 120 (E 240)

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