

KNAUF FIRE PROTECTION COATING

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Knauf Fire Protection Coating - FPC spray grade, is an ablative sealant coating designed to enhance, seal and fire protect mineral fibres.

Mineral fibres coated with Knauf Fire Protection Coating are 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.

Method of delivery

Knauf Fire Protection Coating - FPC Buckets of 8 litres, article no. 651039

> Supporting Constructions

Flexible walls must have a minimum thickness of 100mm and comprise steel studs or timber studs*) lined on both faces with minimum 2 layers of 12.5mm thick boards. Rigid walls must have a minimum thickness of 150mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m³. Rigid floors must have a minimum thickness of 150mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m³.

*) Timber studs: no part of the penetration seal may be closer than 100mm to a stud, and minimum 100mm of insulation of class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration seal and the stud.

Installation Instructions

1. Before installing the stonewool core, please ensure that the surface of all surrounding constructions is free from all loose contaminants, dust and grease. The stonewool should be dry and sound, and any large loose pieces should be brushed off before spraying.
2. Knauf Fire Protection Coating is water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. Select the type of stonewool core and friction fit into the seal according to the fire resistance table on page 1. To secure high density stonewool boards, please seal between the stonewool and the surface of all surrounding constructions on both sides with Knauf FPA Acrylic which will act as an adhesive.
4. When fitting stonewool boards into gypsum walls the side of the boards should be flush with the surface of the gypsum on both sides.
5. When fitting double layer stonewool boards in masonry or concrete constructions, the boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
6. When fitting single layer stonewool in masonry or concrete constructions, it can be positioned to either side of the construction or anywhere in between.
7. When installing stonewool in hollow floor slabs, fire seals should be installed from the soffit side of the floor assuming there is sufficient thickness of concrete below the void. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab.
8. Spray apply Knauf Fire Protection Coating to the stonewool according to the fire resistance table on page 1. Spraying pressures will depend on the type of pump and nozzle used approximately 1700 to 2300 psi using a 25 to 35 thou' tip. Apply the coating in smooth strokes and with the minimum of overspray to achieve an even film thickness and consistent drying across the stonewool.
9. The required wet film thickness (WFT) is usually achieved when the surface is to a satisfactory proper white finish when dry.
10. Overspray can increase drying times. Drying times will be dependent on film thickness, ambient temperature and humidity and may be reduced by using drying ovens and/or fans.
11. Knauf Fire Protection Coating can be over-painted with most emulsion or alkyd (gloss) paints.

Product description

Knauf FP 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.

Storage

Up to 12 months when stored in unopened containers under cool dry conditions. Avoid frost and extremes of temperature. Stored in temperatures between 5 °C and 30 °C

Sizes and Intended Use

Size	Intended Use
TVOC	0.20 mg/m ² h
Formaldehyde	n.d.
Ammonia	n.d.
Carcinogenic	n.d.

n.d. means not detected

FPC complies with the requirements of BREEAM according to the M1 Protocol for Chemical and Sensory Testing of Building Materials as published by RTS version 15.12.2004 which is the best possible environmental and indoor hygiene health protection mark for coatings. Tested by Eurofins Product Testing, report number 392-2014-00000407B.

Scope of application

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The ablative property of the coating resists flame spread and protects the mineral fibres against fire penetration by significantly reducing the permeability of the mineral fibre core and prevents the passage of hot gases, thus reducing the temperature rise on the unexposed side and reducing heat conduction through the building services.

Sound insulation

Description	Sound reduction
Knauf Fire Protection Coating 1.0mm WFT on both sides of minimum 50 mm thick stone wool with density minimum 160 kg/m ³	Rw 55 dB

FPC has been tested at BM Trada (UKAS accredited); according to EN ISO 10140-2:2010.

Properties

- Simple and very quick to install
- Easy to retrofit additional building services after installation
- Permanently flexible - will accommodate movements during fire and smaller movements in the construction it has been fitted within
- Suitable for most surfaces, including concrete, bricks, masonry, steel, wood, gypsum, glass, plastics and most non-porous surfaces
- May be used in unlimited lengths in walls with heights up to 1200 mm and in floors with widths up to 120 mm
- Certified according to ETA 18/0924
- EAD 350141-00-1106

Safety

Wash the material from the skin while still wet. Material in contact with eyes should be washed out immediately with water.

Seek medical advice if discomfort persists. More detailed information can be found in the relevant Knauf Fire Protection Coating - FPC Safety Data Sheet.