

K-FLEX K-FIRE ACRYLIC

DESCRIPTION

K-FLEX K-FIRE ACRYLIC is a water based acrylic sealant 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.

K-FLEX K-FIRE ACRYLIC will also maintain the acoustic design performance in walls and floors.

K-FLEX K-FIRE ACRYLIC cures when it is subjected to atmospheric conditions, however it will retain a degree of elasticity for joint movement.

Under fire exposure, K-FLEX K-FIRE ACRYLIC creates a robust fire seal by the formation of a durable intumescent char.

K-FLEX K-FIRE ACRYLIC can be used with a suitable filling material, i.e. stone wool 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.

CHARACTERISTICS AND FEATURES

- High end formula;
- 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 7.5%;
- No priming necessary for application to most materials;
- Suitable for most surfaces, including concrete, bricks, Leca, steel, gypsum, glass and most non-porous surfaces;
- Hardens quickly, tack free after 1 hour (fire performance specification after one month cure);
- Minimum 12 months storage time (under correct conditions).

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
Non-sticky	Max. 75 minutes
Film forming	Max. 25 minutes
Totally hardened	3 to 5 days depending on thickness and temperature
Flexibility	7.5
Thermal conductivity	0.845 W/mK (+/- 3%) @ 20mm depth
Storage	At least 12 months stored in unopened cartridges, between 5°C and 30°C
Service temperature	-20 to +70°C
Application temperature	+5 to +30°C
Compatibility	Suitable for use with most materials, except 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
Color	White or grey

SOUND INSULATION

K-FLEX K-FIRE ACRYLIC has been tested at according to EN ISO 10140-2:2010.

Usage of any backing material is optional, due to the tests being conducted with sealant only.

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

EMISSION DATA (INDOOR AIR QUALITY)

K-FLEX K-FIRE EX MORTAR complies with the requirements of GEV and the results correspond to the EMICODE emission class EC 1PLUS which is the best possible environmental and indoor hygiene health protection mark.

Compound	Emission rate after 3 days	Emission rate after 4 weeks
TVOC	83 $\mu\text{g}/\text{m}^3$	< 5 $\mu\text{g}/\text{m}^3$
TSVOC n.d	n.d.	< 5 $\mu\text{g}/\text{m}^3$
VOC w/o NIK	n.d.	< 5 $\mu\text{g}/\text{m}^3$
R Value	n.d.	< 1
Formaldehyde	<3 $\mu\text{g}/\text{m}^3$	n.d.
Acetaldehyde	< 3 $\mu\text{g}/\text{m}^3$	n.d.
Sum for+ace	< 0.002 ppm	n.d.
Carcinogenic	< 1 $\mu\text{g}/\text{m}^3$	< 1 $\mu\text{g}/\text{m}^3$

n.d. or < means not detected

LIMITATIONS

Since the product is applied under circumstances beyond our control, L'Isolante K-Flex can accept no direct or consequential liability, whether in contract or in tort, for the interpretations of such recommendations and reserves the right to modify the recommendations as necessary.