
Technical Insulation

Passive Fire Protection
Great Britain & Ireland

K-Stop® Intumescent Mastic

Technical Data Sheet

Description

Kingspan K-Stop® Intumescent Mastic is designed to prevent the spread of fire, smoke and gases through openings in fire rated walls and floors, specifically linear joints and gap seals for up to 2 hours depending on application. K-Stop® Intumescent Mastic should be applied over suitable backing materials to ensure correct width to depth ratio and to reduce shrinkage of the joint during hardening. In areas with a high degree of humidity and/or in joints with excessive movement, use Kingspan K-Stop® Firescreen Sealant.

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

The sealant has undergone tests to BS 476-20: 1987 (Fire tests on building materials and structures - Method for determination of the fire resistance of elements of constructions (general principles)) and BS 476-22: 1987 (Fire tests on building materials and structures - Method for determination of the fire resistance of non-loadbearing elements of construction).

The product is also tested under BS EN 1366-4: 2021* (Fire resistance tests for service installations - Linear joint seals) for fire protection joints and gap seals.

* And all previous editions.



General Properties

- Fire rated in both horizontal and vertical joints.
- No priming required for most construction substrates.
- Joint movement capability of 7.5%.
- For use in joints up to 50 mm wide.
- Resistant to slumping.
- 24 months shelf life.
- Fast cure - tack free within an hour.
- Easy to apply and tool off.
- Halogen free.
- Paintable.
- Provides adhesion to most common building substrates.

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Emission Data (Indoor Air Quality)

Compound	Emission Rate After 4 Weeks
TVOC	< 5 µg/m ³
Formaldehyde	< 3 µg/m ³
Carcinogenic	< 1 µg/m ³

NB n.d. or < means not detected.

Regulation or Protocol	Conclusion
French VOC Regulation	A+
French CMR Regulation	Pass
Italian CAM	Pass
ABG / AgBB	Pass
Belgian Regulation	Pass
EMICODE	EC 1 ^{PLUS}
Indoor Air Comfort GOLD®	Pass
Blue Angel (DE-UZ 132)	Pass
BREEAM International	Exemplary Level
BREEAM NOR	Exemplary Level
LEED® v4.1 BETA	Pass
SCAQMD Rule 1113	Pass
M1	Pass

K-Stop® Intumescent Mastic has been tested by Eurofins Product Testing; reports available upon request.

Technical Data

Form	Ready to use thixotropic paste
Specific Gravity	1.55 - 1.65
Flash Point	None
Reaction to Fire	NPD
Tack Free	Max. 60 minutes
Skin Forming	Max. 20 minutes
Durability / Service	Class Z ₂
Storage	24 months stored in unopened cartridges. To be stored in temperatures between 10°C and 30°C
Working Life	10 years
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 movement
Classification	CE-marked - Sealant for fire rated joints and linear gap seals class EI 120 depending on application
Standard Colours	White
Packaging	Box containing 25 cartridges each 290 ml Box containing 25 foil packed each 300 ml Box containing 12 foil packed each 600 ml Available in 10 ltr tubs Please contact the sales department for pallet quantities

Resistance to Fire - Linear Seals

Construction	Seal Position	Minimum Seal Depth	Backing Material	Maximum Seal Width	Fire Resistance
Drywalls, masonry, aerated concrete or concrete walls (≥ 100 mm thick)	Both sides in horizontal seals	20.0 mm	PE rod	30 mm	EI 120 (E 120)
	Both sides in vertical seals	9.0 mm	Mineral stone wool minimum 20 mm deep	30 mm	EI 90 (E 90)
Drywalls, masonry, aerated concrete or concrete walls (≥ 130 mm thick)	Both sides in vertical seals	15.0 mm	Cardboard sheet	30 mm	EI 90 (E 120)
		15.0 mm	Mineral stone wool minimum 15 mm deep	30 mm	EI 120 (E 120)
		30.0 mm	Cardboard sheet	30 mm	EI 120 (E 120)
Rigid floors comprise aerated concrete or concrete within floors or between floors and walls (≥ 150 mm thick)	Single sided top face	25.0 mm	Mineral stone wool minimum 25 mm deep	100 mm	EI 120 (E 120)

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Installation

General Guidance

Minimum Separations and Limitations

In areas with a high degree of humidity and / or in joints with excessive movement, K-Stop® Firescreen Sealant should be used.

Supporting Constructions

Flexible walls must have a minimum thickness of 100 mm and comprise steel studs lined on both faces with minimum 2 layers of 12.5 mm thick boards.

Rigid walls must have a minimum thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m³.

Instructions

Before installing K-Stop® Intumescent Mastic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.

1. Where K-Stop® Intumescent Mastic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Kingspan Technical Insulation for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
2. As K-Stop® Intumescent Mastic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or K-Stop® Intumescent Mastic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with K-Stop® Intumescent Mastic to the required depth. For linear seals without services, please refer to the Resistance to Fire table in this Technical Data Sheet. If installation does not have to meet any specific fire specification, it is recommended that a width to depth ratio of 2:1 is utilized, with a minimum depth of 12 mm of sealant.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. K-Stop® Intumescent Mastic can be over-painted with most emulsion or alkyd (gloss) paints.

Contact Details

Great Britain

Kingspan Technical Insulation Ltd
Harvey Road | Burnt Mills Industrial Estate
Basildon | SS13 1QJ

T: +44 (0) 1524 388 898
E: sales.pfp@kingspan.com
www.kingspanpassivefireprotection.co.uk

For individual department contact details please visit
www.kingspantechinsulation.co.uk/contacts

Ireland

Kingspan Insulation Ltd
Castleblayney | County Monaghan

T: +353 (0) 42 975 4219
E: sales.pfp@kingspan.com
www.kingspantechinsulation.ie



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