



### General Product Description

Protecta® FR Foam is designed to maintain the fire resistance in walls by filling linear gaps in drywalls, concrete or masonry walls.

Supplied as a single component polyurethane foam, Protecta® FR Foam cures by moisture absorption. Boasting excellent adhesion to most materials used in construction with high durability during service once cured. FR Foam also has excellent thermal properties (0.0354 W/mK) and sound insulation.

### Fire Classification - Table

#### MASONRY OR CONCRETE WALLS ≥ 150MM

Joint type Max width	Installation Min seal depth	Classification
Horizontal joints ≤ 20mm	150mm	EI 180
Horizontal joints ≤ 20mm	140mm <sup>1)</sup>	EI 240
Vertical joints ≤ 20mm	150mm	EI 60
Vertical joints ≤ 20mm	140mm <sup>1)</sup>	EI 240

#### DRYWALLS, MASONRY OR CONCRETE WALLS ≥ 100MM

Joint type Max width	Installation Min seal depth	Classification
Timber door joints ≤ 30mm	92mm <sup>2)</sup>	EI 45

<sup>1)</sup> The FR Foam must be covered on both sides with minimum 5 mm thick Protecta FR IPT sealant.

<sup>2)</sup> The FR Foam must be covered on both sides with minimum 12 mm thick wooden architraves fixed with pins, nails or screws.

### Sound Insulation

Description	Sound reduction
Single sided seal ≥ 50mm depth	Rw 61 dB

Same or higher sound reduction will be achieved with greater depth. The sound insulation value is only valid for the foam and not for other elements in the building construction. The test report is available upon request.

### General Guide

Flexible walls must have a minimum thickness of 100 mm and comprise steel studs or timber studs lined on both faces with minimum 2 layers of 12.5 mm thick boards. Rigid walls must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>. The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

### Test Standards

This Technical Data Sheet and the Installation Instructions are based on the product's European Technical Assessment issued in accordance with regulation (EU) No 305/2011 on the basis of EAD 350141-00-1106, tested to EN 1366-4 in conjunction with EN 1363-1. The product hold the following approval marks; CE-mark for Europe, UL-EU Certificate Internationally and UAE Certificate of Compliance.



### Installation

1. The foam is hazardous and the propellant is extremely flammable. Please read the Safety Data Sheet and use the recommended protective measurements for transport, storage and use of this product.
2. Remove all loose debris in the seal, any contaminants such as grease and oil from the surfaces to be sealed.
3. Moisture is necessary to ensure a fast and even curing of the foam. Spray surfaces with water to moisten them when foam is applied (a spray bottle for plants can be used). This is especially important in warm and dry areas.
4. The tin must be shaken well (approx. 15-20 times) before use. Attach the gun to the tin but do not overtighten or activate the release valve.
5. The tin should be turned upside down for foam application so that the gun is under the tin.
6. Depending on the joint orientation and size, best results will be obtained by building up multiple layers from the bottom, thus allowing each individual layer to part cure. Do not attempt to insert excessive wet foam, as rapid expansion will cause wasteful overspill of curing foam in the joint and may apply pressure to soft materials and push them out of position. Foam extrusion can be controlled by depressing the trigger on the gun more or less, reducing the pressure on the valve.
7. Once the gap or joint is completely filled, excessive overspill should be removed by cutting with a knife or similar.
8. After sealing, the foam should be covered by a substrate resistant to mechanical damage and UV-radiation.

### Emission Data (indoor air quality)

Compound	Emission rate after 3 days	Emission rate after 4 weeks
TVOC	< 5 µg/m <sup>3</sup>	< 5 µg/m <sup>3</sup>
TSVOC	< 5 µg/m <sup>3</sup>	< 5 µg/m <sup>3</sup>
VOC w/o NIK	< 5 µg/m <sup>3</sup>	< 5 µg/m <sup>3</sup>
R Value	< 1	< 1
Formaldehyde	< 3 µg/m <sup>3</sup>	< 3 µg/m <sup>3</sup>
Acetaldehyde	< 3 µg/m <sup>3</sup>	< 3 µg/m <sup>3</sup>
Sum for+ace	< 5 ppb	-
Carcinogenic	< 1 µg/m <sup>3</sup>	< 1 µg/m <sup>3</sup>

Regulation or Protocol	Conclusion
French VOC Regulation	A+
ABG / AgBB to the guidelines of DIBt	Pass
Belgian Regulation	Pass
EMICODE	EC 1 PLUS
Indoor Air Comfort GOLD®	Pass
BREEAM-NOR	Pass
LEED v4.1	Compliant

Protecta® FR Foam has been tested by Eurofins Product Testing; reports available upon request.

### Technical Data

Condition	Ready for use, polyurethane foam
Flammability	B1 (cured foam)
Dimensional stability	≤ 3%
Non-sticky	Max. 10 minutes
Cutting time	Max. 40 minutes
Curing time	Approx. 24 hours
Volume	Approx. 35 – 42 LTR foam from each can
Durability	Y <sub>2</sub> - Intended for use at temperatures below 0°C, but with no exposure to rain nor UV. Includes lower classes.
Thermal conduct.	0.036 W/mK
Storage	12 months stored in unopened cans. To be stored upraised in dry environments between 5 °C and 30 °C. Do not store in direct sunlight. Can be stored down to -5 °C for a short period, up to 7 days
Working life	10 years
Application temp.	+ 10 to + 30 °C
Classification	CE-marked - Fire Stopping and Sealing Product: Linear Joint and Gap Seals
Colour	Grey
Packaging	Box containing 12 cans, each 750 ml