

Technical Data Sheet

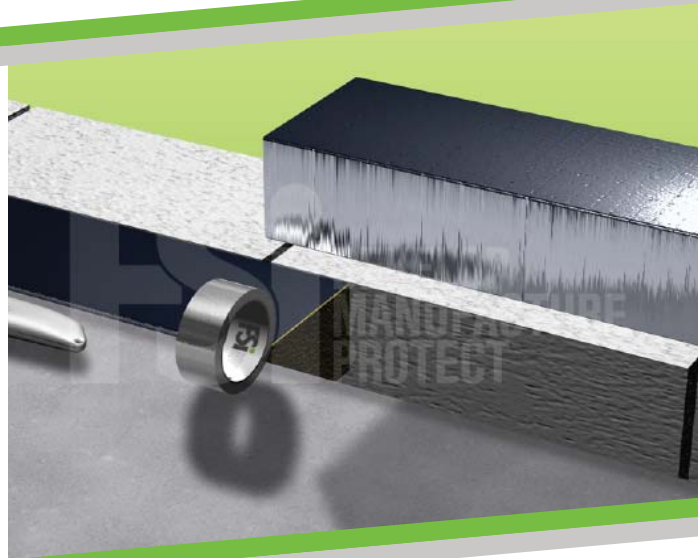
Cavity Barrier

UIC of product-type: PARA, RCB, TECSEB

Issue: 2.1
Jan 2017



CE Certification
Air Permeability
Movement Rigid Walls
Pipes Linear joints
Acoustic Rating
Trays Rigid Floors
CE Certification
Air Permeability



CE Certification
Penetration Seals
Movement Rigid Walls
Metallic Pipes Linear
Flexible Walls Acoustic
Cable Trays Rigid Floors
Plastic Pipes CE Certification
Air Permeability



APPROVED
CF5126
Paraflam ONLY



ETA 16-0763
CE-0843-CPR-JA0331
Paraflam ONLY



FSi Limited
Westminster Industrial Estate
Tamworth Road
Measham
DE12 7DS
UK

www.fsiltd.com
Email: technical@fsiltd.com
Tel: +44 (0) 1530 515130
Fax: +44 (0) 1530 273564





Contents

Contents	Page
• Product Technical Data	1
- Product Overview	
• Performance Data - Paraflam - Floor	2 - 3
- 150mm and 250mm Rigid floors	
• Performance Data - Paraflam - Wall	4
- 250mm Rigid Walls	
• Performance Data - Silverliner Rainscreen - Wall	5 - 6
- 250mm Rigid and Flexible walls	
• Performance Data - Silverliner Rainscreen - Floor	7
- 250mm Rigid floors	
• Performance Data - Tecnica SEB - Floor	8
- 150mm Rigid floors	



Product Technical Data

Product Overview

Technical Description of Paraflam SEB

Paraflam SEB Cavity Barrier comprises a one piece closed dimension product having a structural internal stone wool core. The product has integrated aluminium foil facings to provide class 'O' rating and excellent resistance to smoke. The unique method of manufacture provides a resilient lateral compression required to ensure a tight fit. Designed to be used in Ceiling Cavity, Slab Edge or Under Floor installations and upgrades.

Technical Description of Silverliner Rainscreen Cavity Barrier

Silverliner Rainscreen Cavity Barrier is developed to protect the voids between the outer rainscreen cladding / facade and the inner construction element of the building. There are two versions of Silverliner developed by FSi depending on the building requirements, first is a Ventilated Cavity Barrier which leaves up to a 50mm gap to ensure movement of air and moisture within the building. Second is a Non - Ventilated which keeps tight within the gap but allows movement within the building. The aluminium foil facing provides class 'O' rating and excellent resistance to smoke. A unique method of manufacture provides a resilient lateral compression required to ensure a tight fit.

Technical Description of Tecnica SEB

Tecnica SEB is a pre-built, pre-cut, multi layered barrier designed to prevent the passage of fire between compartment floors at the edge of slabs, offering acoustic isolation and waterproofing whilst still allowing for building movement. There are 16 build up possibilities within the product range which offer differing engineered solutions and capabilities. The products have integral aluminium foil facings to provide class 'O' rating and excellent resistance to smoke.

A unique patented method of manufacture provides a resilient lateral compression required to ensure a tight fit to allow building movement. The core technology is a revolutionary binder based on rapidly renewable materials instead of petro-based chemicals. It reduces embodied energy and deliver superior environmental sustainability. The intumescent is not effected by moisture, it does have a European Classification for internal and external applications.

Intended Use

- Ideal for Historical Building Upgrades
- Voids up to 300mm wide
- Air and Water Permeability Tested
- Moisture Resistance
- Up to 120 minutes Fire Resistance
- Suitable to close up to 25mm ventilation gap (50mm gap is available).
- Voids up to 450mm wide.
- Dynamic movement testing 500 cycles per 30 minutes (non ventilated).
- Free of halogens, asbestos, fibres and silica and is non toxic.
- Life expectancy of over 25 years.
- Contributes to Green Building.

Key Product Points

- High speed installation
- Single component
- No VOC
- No Curing time required
- Easy low maintenance system
- Excellent Acoustic Isolation Properties
- Suitable for use in irregular applications
- Brackets included in the pack
- Long Life and ease of installation for minimum waste
- Softer feel, Odourless and Easy to Cut
- Superior Level of Sustainability



Performance Data - Paraflam - Floor

ETA 16-0763
CE-0843-CPR-JA0331

Substrates

The floors shall be a minimum of **150mm thick**. Masonry / Concrete floors shall have a minimum density for concrete or brick of 780kg/m³ and for aerated concrete blocks of 600kg/m³. All floors shall have at least the same fire rating as that required for the Sealing system.

Service support requirements

Services should be rigidly supported via steel angles, hangers or channels, not further than 400mm from the surface of the sealing system on both faces unless specified otherwise in the performance data.

Terminology

Fire performance in accordance with EN1366-3, EN1366-4, Classification 13501-2:2007 + A1:2009, ETAG-026, Air Permeability EN1026, Sound EN10140. Fire resistance classes are: E = Integrity, the product can withstand the fire from the non-fire side, I =Insulation, the product can withstand the temperature travelling down the service, U/U = Uncapped inside and outside the furnace, U/C = Uncapped inside and Capped outside the furnace, C/U = Capped inside and Uncapped outside the furnace.

Rigid Floor

Linear Joints

Rigid Floor constructions with a minimum thickness of 150mm	
Penetration Specification	Classification
Paraflam SEB Linear Joint Seal, 100mm thick x 160mm wide (Compressed to 150mm) 80kg/m ³ .	E 120 - H - X - F - W00-150 EI 60 - H - X - F - W00-150

Joint Seals in Floor Installations with a minimum thickness of 150mm.					
Minimum Depth and Density of Material	Joint Width Range (mm)	Element of construction	Fixings	Integrity (mins)	Insulation
100mm / 80kg/m ³	0 - 500	Aerated concrete / concrete floor / double sided softwood (40mm thick).	600mm centres both sides of the seal.	45	30
	0 - 560	Aerated concrete / concrete floor / double sided softwood (40mm thick).	600mm centres both sides of the seal.	60	30
	0 - 350	Aerated concrete / concrete floor.	600mm centres both sides of the seal.	60	30
75mm / 80kg/m ³	0 - 310	Aerated concrete / concrete floor / double sided softwood (40mm thick).	N/A	60	30
Installation Technique	Compress horizontally orientated, Paraflam board into gap/joint to finish flush with the surface of the floor, with a minimum compression of 10mm.				
Installation of Support Fixings	Mild steel 'Z' type angle support brackets with dimensions of 400 x 50 x 200 x 25 installed at mid depth of the barrier to provide support. The mild steel support brackets are to be mechanically fixed to the associated substrate.				



Performance Data - Paraflam - Floor

ETA 16-0763
CE-0843-CPR-JA0331

Rigid Floor

Linear Joints

Joint Seals in Floor Installations with a minimum thickness of 150mm.					
Minimum Depth and Density of Material	Joint Width Range (mm)	Element of construction	Fixings	Integrity (mins)	Insulation
100mm / 80kg/m ³	0 - 560	Aerated concrete / concrete floor / single sided softwood (40mm thick).	600mm centres both sides of the seal.	60	30
	0 - 350	Aerated concrete / concrete floor.	600mm centres one side of the seal.	60	30
75mm / 80kg/m ³	0 - 310	Aerated concrete / concrete floor / single sided softwood (40mm thick).	N/A	60	30
100mm / 80kg/m ³	0 - 150	Aerated concrete / concrete floor.	N/A	120	60
Installation Technique	Compress horizontally orientated, Paraflam board into gap/joint to finish flush with the surface of the floor, with a minimum compression of 10mm.				
Installation of Support Fixings	Mild steel 'Z' type angle support brackets with dimensions of 400 x 50 x 200 x 25 installed at mid depth of the barrier to provide support. The mild steel support brackets are to be mechanically fixed to the associated substrate.				

Joint Seals in Floor Installations with a minimum thickness of 250mm.					
Product Name	PARAFLAM SEB				
Minimum Depth and Density of Material	Joint Width Range (mm)	Element of construction	Fixings	Integrity (mins)	Insulation
100mm / 80kg/m ³	0 - 590	Aerated concrete / concrete floor.	550mm centres both sides of the seal.	120	60
Installation Technique	Compress horizontally orientated, Paraflam board into gap/joint to finish flush with the surface of the floor, with a minimum compression of 10mm.				
Installation of Support Fixings	Mild steel 'Z' type angle support brackets spanning the full width of the seal, installed at mid depth of the barrier to provide support. The mild steel support brackets are to be mechanically fixed to the associated substrate.				



Performance Data - Paraflam - Wall

ETA 16-0763
CE-0843-CPR-JA0331

Substrates

The walls shall be a minimum of **100mm thick**. Drywalls shall comprise a minimum of 2 layers of 'Type F' Gypsum board on both faces, with minimum 50mm studs. Masonary / Concrete walls shall have a minimum density for concrete or brick of 780kg/m³ and for aerated concrete blocks of 600kg/m³. All walls shall have at least the same fire resistance as that required for the sealing system.

Service support requirements

Services should be rigidly supported via steel angles, hangers or channels, not further than 400mm from the surface of the sealing system on both faces of wall and top face of floor unless specified otherwise in the performance data.

Terminology

Fire performance in accordance with EN1366-3, EN1366-4, Classification 13501-2:2007 + A1:2009, ETAG-026, Air Permeability EN1026, Sound EN10140. Fire resistance classes are: E = Integrity, the product can withstand the fire from the non-fire side, I =Insulation, the product can withstand the temperature travelling down the service, U/U = Uncapped inside and outside the furnace, U/C = Uncapped inside and Capped outside the furnace, C/U = Capped inside and Uncapped outside the furnace.

Rigid Wall

Linear Joints

Joint Seals in Wall Installations with a minimum thickness of 250mm thick.

Minimum Depth and Density of Material	Joint Width Range (mm)	Element of construction	Fixings	Integrity (mins)	Insulation
100mm / 80kg/m ³	0 - 200	Aerated concrete / concrete wall.	600mm centres one side of the seal.	120	60
Installation Technique	Compress vertically orientated, Paraflam board into gap / joint to finish flush with the surface of the wall, with a minimum compression of 10mm. All splice joints to be sealed along the joint with foil tape on both faces of the seal.				



Performance Data - Silverliner Rainscreen - Wall

Substrates

The walls shall be a minimum of **100mm thick**. Drywalls shall comprise a minimum of 2 layers of 'Type F' Gypsum board on both faces, with minimum 50mm studs. Masonry / Concrete walls shall have a minimum density for concrete or brick of 780kg/m³ and for aerated concrete blocks of 600kg/m³. All walls shall have at least the same fire resistance as that required for the sealing system.

Service support requirements

Services should be rigidly supported via steel angles, hangers or channels, not further than 400mm from the surface of the sealing system on both faces unless specified otherwise in the performance data.

Terminology

Fire performance in accordance with EN1366-3, EN1366-4, Classification 13501-2:2007 + A1:2009, ETAG-026, Air Permeability EN1026, Sound EN10140. Fire resistance classes are: E = Integrity, the product can withstand the fire from the non-fire side, I =Insulation, the product can withstand the temperature travelling down the service, U/U = Uncapped inside and outside the furnace, U/C = Uncapped inside and Capped outside the furnace, C/U = Capped inside and Uncapped outside the furnace.

Silverliner Rainscreen Cavity Barrier - Ventilated

Description	Result	Test Standard
Description	Silver Foil Wrapped with Black Encased Intumescent edge. Can be fully encased.	
Fire Resistance	60mins, 30/30	BS 476 - 20/22, DIN 4102 B2 ASFP Open State Cavity Barrier Test TGD 19
Closure Time	> 5mins	
Activation	Approx 180°C - (Intumescent Material)	
Expansion Volume	25 times thickness of material (1.4mm = 30mm)	ETAG 026
Expansion Pressure	approx. 0.7N/mm ²	ETAG 026
Density	Stone wool 80kg/m ³ Intumescent 1.3g/cm ³	ISO 2811-1:2011
Weather Resistance	Yes	ETAG 026 - Type X
Sag	0%	
Open Void Size	25mm - 50mm	
Dimensions	75mm thickness x 1000mm long	
Width	30mm to 450mm	
Brackets	3 per unit	



Performance Data - Silverliner Rainscreen - Wall

Silverliner Rainscreen Cavity Barrier - Non - Ventilated

Description	Result	Test Standard
Description	Silver Foil Wrapped with Black Encased Elastomeric Flexible Intumescent edge. Can be fully encased.	
Fire Resistance	120mins	BS 476 - 20/22
Activation	Approx 180°C - (Intumescent Material)	
Expansion Volume	25 times thickness of material (1.4mm = 30mm)	ETAG 026
Expansion Pressure	approx. 0.7N/mm ²	ETAG 026
Density	Mineral Fibre 80kg/m ³ Intumescent 1.3g/cm ³	ISO 2811-1:2011
Weather Resistance	Yes	EN 10140
Acoustic Isolation	39dB	EN 1026
Air Permeability	600Pa - 100Pa 11.1/8.9 m ³ /h/m ²	
Sag	0%	
Movement	500 cycles per 30 mins - 50% expansion and compression	
Dimensions	75mm thickness x 1000mm long	
Width	40mm to 450mm	
Brackets	2 per unit	

Rigid Floor

Linear Joints

Rigid Floor constructions with minimum wall thickness of 250mm		
Penetration Specification	Integrity	Insulation
Silverliner Rainscreen Cavity Barrier RCB 100, 225mm wide x 900mm long x 100mm thick.	120 minutes	90 minutes



Performance Data - Silverliner Rainscreen - Floor

Substrates

The floors shall be a minimum of **150mm thick**. Masonry / Concrete floors shall have a minimum density for concrete or brick of 780kg/m³ and for aerated concrete blocks of 600kg/m³. All floors shall have at least the same fire rating as that required for the Sealing system.

Service support requirements

Services should be rigidly supported via steel angles, hangers or channels, not further than 400mm from the surface of the sealing system on both faces unless specified otherwise in the performance data.

Terminology

Fire performance in accordance with EN1366-3, EN1366-4, Classification 13501-2:2007 + A1:2009, ETAG-026, Air Permeability EN1026, Sound EN10140. Fire resistance classes are: E = Integrity, the product can withstand the fire from the non-fire side, I =Insulation, the product can withstand the temperature travelling down the service, U/U = Uncapped inside and outside the furnace, U/C = Uncapped inside and Capped outside the furnace, C/U = Capped inside and Uncapped outside the furnace.

Rigid Floor

Linear Joints

Rigid Floor constructions with minimum floor thickness of 250mm		
Penetration Specification	Integrity	Insulation
Silverliner Rainscreen Cavity Barrier RCB 75, 200mm wide x 900mm long x 75mm thick	120 minutes	60 minutes
Silverliner Rainscreen Cavity Barrier RCB 100, 200mm wide x 900mm long x 100mm thick	120 minutes	60 minutes



Performance Data - Tecnica SEB - Floor

Substrates

The floors shall be a minimum of **150mm thick**. Masonry / Concrete floors shall have a minimum density for concrete or brick of 780kg/m³ and for aerated concrete blocks of 600kg/m³. All floors shall have at least the same fire rating as that required for the Sealing system.

Service support requirements

Services should be rigidly supported via steel angles, hangers or channels, not further than 400mm from the surface of the sealing system on both faces unless specified otherwise in the performance data.

Terminology

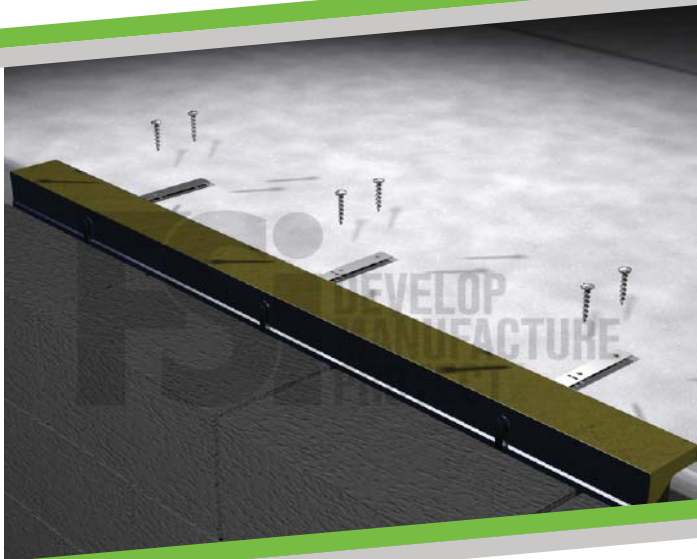
Fire performance in accordance with EN1366-3, EN1366-4, Classification 13501-2:2007 + A1:2009, ETAG-026, Air Permeability EN1026, Sound EN10140. Fire resistance classes are: E = Integrity, the product can withstand the fire from the non-fire side, I =Insulation, the product can withstand the temperature travelling down the service, U/U = Uncapped inside and outside the furnace, U/C = Uncapped inside and Capped outside the furnace, C/U = Capped inside and Uncapped outside the furnace.

Description	Result	Test Standard
Description	Multi Layered Stone Wool & Thermoplastic Composite	
Density	80kg/m ³ and 140kg/m ³	ISO 2811-1:2011
Thermal	0.35 to 0.37W/mk	
Testing	120 minutes Fire Resistance 60 minutes Fire Resistance 63dB Acoustic Reduction (maximum) Euroclass A1 Water Tightness* at 60 kpa Water Absorption* No Penetration >250N WPM* Adhesion to Steel >250N WPM* Adhesion to Primed Concrete	BS476:22 EN1366-4 EN10140 BS EN ISO 13501-1 EN 1928:2002 ASTM D 570 ASTM D 1000 ASTM D 1000
Thickness	100 - 140mm	
Acoustic Membrane	2 - 12.5mm thickness	
Acoustic Isolation**	33 - 63 dB	EN 10140
Waterproof Membrane	1.0 mm density polyethylene film with self adhesive compound	
Dimensions	Cut to size	
Void Size	300mm wide x Length	
Heat Aging	No defects at 300°C	

Rigid Floor

Linear Joints

Rigid Floor constructions with minimum floor thickness of 150mm	
Penetration Specification	Classification
Tecnica SEB Linear Joint Seal, 114.5mm thick x 170mm wide (Compressed to 150mm) 80kg/m ³ and 140kg/m ³ .	E 120 - H - X - F - W00-150 EI 120 - H - X - F - W00-150



FSi has Technical Representatives who provide assistance in the selection and specification of FSi products. For more information, specification and technical advice please call our Head Office on Tel: +44 (0) 1530 515130. Guarantee / Warranty: FSi products are manufactured to rigid standards of quality. Any product which has been applied in accordance with FSi's written instructions and in any application recommended by FSi, but which is proved to be defective in product quality, will be replaced free of charge. No liability can be accepted for the information provided in this document although it is published in good faith and believed to be correct. FSi Limited reserves the right to alter product specifications without prior notice, in line with our Company policy of continuous development and improvement.