UL-EU CERTIFICATE

Certificate No. UL-EU-00642-CPR

Page 1/8

Date of Issue 2014-09-29 Revision 2021-01-15

Certificate Holder FSi Limited

Westminster Industrial Estate

Tamworth Road

Measham DE12 7DS

United Kingdom

Manufacturer A/008

Certified Product Type Fire Stop - Coating

Product Trade Name Flexi Coat

Trademark N/A

Rating/Classification See Appendix

Harmonised Technical Specifications ETAG 026-3 / EN 13501-2

Supporting Documentation ETA 13/1057, EC – CERTIFICATE OF CONSTANCY OF

PERFORMANCE - 2812 - CPR - JA5010, Classification

Report No. 4789080141

Additional information Additional test evidence is held on file

Expiry date 2024-09-28





Authorized Certification Decision Maker Chris Miles This is to certify that representative samples of the Certified Product listed above have been investigated by Underwriters Laboratories to the Standard(s) indicated on this Certificate, in accordance with the UL Global Services Agreement and the UL-EU Mark Service Terms and Conditions ("Agreement"). The Certificate Holder is entitled to use the UL-EU Mark for the Certified Product listed on the certificate and manufactured at the production site(s) listed, in accordance with the terms of the Agreement. Only those products bearing the UL-EU Mark for Europe should be considered as being covered by UL's UL-EU Mark Service. This Certificate shall remain valid through the Expiration date, unless a Standard identified on this Certificate is amended or withdrawn prior to that date or there is a non-compliance with the Agreement.



Appendix UL-EU CERTIFICATE

Certificate No. UL-EU-00642-CPR

Page 2/8

Date of Issue 2014-09-29

This certificate relates to the use of Flexi Coat coating/sealant for fire stopping where there are joints in or between floors and walls and for perimeter joint/cavity barrier seals between floor end and curtain walling. The detailed scope is given in pages 3 to 6 of this Certificate. This shows the thickness and acceptable dimensions, substrates and orientations required to provide fire resistance periods of up to 240 minutes (E 240/ EI 180).

The product is certificated on the basis of:

- i) ETA 13/1057
- ii) EC CERTIFICATE OF CONSTANCY OF PERFORMANCE 2812 CPR JA5010
- ii) Inspection and surveillance of factory production control by UL
- iii) Fire resistance test data in accordance with 1366-4: 2006
- iv) Fire resistance test data in accordance with 1364-4: 2014
- v) Classification in accordance with EN 13501-2
- vi) Durability and Servicability as defined in ETAG 026-3

The movement capability of Flexi Coat joint seals is restricted to ≤ 12.5% (lateral movement)

The durability class of Flexi Coat is Z_1 - intended for use at internal conditions with high humidity, excluding temperatures below $0^{\circ}C$



Appendix UL-EU CERTIFICATE

Certificate No. UL-EU-00642-CPR

Page 3/8

Date of Issue 2014-09-29

Product-type: Coating	Intended use: Linea	r Joint & Gap Seal	
Basic requirement for construction work	Basic Requirement	Basic requirement for construction work	
	BWR 1 Mechanical resistance and stabili	ty	
人りしんりしんり	None	し人りし入りし入り	
$\times \times \times$	BWR 2 Safety in case of fire	$\langle \times \times \rangle$	
EN 13501-1	Reaction to fire	No performance determined	
EN 13501-2	Resistance to fire	See page 6	
Mil. Mil. Mil.	BWR 3 Hygiene, health and environmen	t / m. //m. //m	
EN 1026:2000	Air permeability (material property)	See page 4	
ETAG 026-3, Annex C	Water permeability (material property)	No performance determined	
Declaration of manufacturer	Release of dangerous substances	Declaration of manufacturer	
	BWR 4 Safety in use		
EOTA TR 001:2003	Mechanical resistance and stability	No performance determined	
EOTA TR 001:2003	Resistance to impact/movement	No performance determine	
EOTA TR 001:2003 ISO 11600	Adhesion	No performance determined	
$\times \times \times$	BWR 5 Protection against noise	$\langle \times \times \rangle$	
EN 10140-2/ EN ISO 717-1	Airborne sound insulation	Rw(C;Ctr)= 30 (-2;-8) dB*	
EN 10140-3/ EN ISO 717-2	Impact sound insulation	No performance determined	
Vir. Vir. Vir.	BWR 6 Energy economy and heat retention	on	
EN 12664, EN 12667 or EN 12939	Thermal properties	No performance determined	
EN ISO 12572 EN 12086	Water vapour permeability	No performance determined	
10000	General aspects relating to fitness for use	e	
ISO 8339: 2005, ISO 9046: 2004 & ISO 7389: 2003	Durability and serviceability	\mathbf{Z}_{l}	
Vii. Vii. Vii	SWR 7 Sustainable use of natural resource	ees	
人ピ人ピレスツ		No performance determined	

^{*} As given in ETA, see page 5 for additional ratings

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Appendix UL-EU CERTIFICATE

Certificate No. UL-EU-00642-CPR

Page 4/8

Date of Issue 2014-09-29

	Flexi Coat: Air Permeability according to BS EN 1314-1							
Pressure (Pa)	Results under pos	sitive chamber pressure	Results under negative chamber pressure					
	Leakage (m³/h)	Leakage (m³/m²/ h)	Leakage (m³/h)	Leakage (m³/m²/ h)				
50	0.1	0.1	1.0	1.4				
100	0.3	0.4	1.1	1.5				
150	0.6	0.8	1.5	2.1				
200	0.8	1.1	0.9	1.3				
250	1.1	1.5	1.3	1.8				
300	1.2	1.7	1.7	2.4				
450	2.4	3.3	3.5	4.9				
600	4.5	6.3	5.3	7.4				

Flexi Coat: Analytical VOC Results								
Solid content % mass	Water content, % mass	Exempt compounds, % mass	VOC less water less exempt compounds, g/l	VOC limit g/l				
66.2	7.7*	0***	380	750*				

^{*} VOC limit for other sealants

^{***} No information about exempt compounds. Set to zero.

Flexi Coat: Water Permeability according to BS EN 1027*						
Pressure (Pa) Duration Observations						
50	15 minutes	No Leakage Observed				
100	5 minutes	No Leakage Observed				
150	5 minutes	No Leakage Observed				
200	5 minutes	No Leakage Observed				
250	5 minutes	No Leakage Observed				
300	5 minutes	No Leakage Observed				
450	3 minutes 50	At a total duration of 43 minutes 50 seconds the right hand edge of the sample joint to				
450	seconds	subframe separated and began to allow water leakage off the sample				

^{*} Exposure from coated side



^{**} Given by client

Certification Mark UL-EU mark

Certificate No. UL-EU-00642-CPR

Page 5/8

Date of Issue 2014-09-29

Configuration	R _w (C; C _{tr}) Specimen only, 1m ²	ng to BS EN ISO 10140-2:201 Dnew Partition & Specimen, 14.2m ²		
Flexi Coat on source room side of wall, 1mm deep x 500mm wide x 2000mm high, with 100mm deep Stonewool (80kg/m³)	30 (-2; -8)	40 (2; -8)		



Certification Mark UL-EU mark

Certificate No. UL-EU-00642-CPR

Page 6/8

Date of Issue 2014-09-29

Flexi Coat: Linear Gaps in Floors								
Substrate	Minimum Substrate	Maximum Gap Size	Seal	Minimum Seal Depth	Backing	Minimum Backing	Fire Res (mir	
	Thickness (mm)	(mm)	Position	(mm)	Material	Depth (mm)	E	EI
AAC or Concrete	150	200	Top of floor	1 (DFT)	Stone Mineral Wool* Compressed by 20%	100	240	180

^{* 80} kg/m³

	Flexi Coat: Linear Gaps in Walls								
Substrate	Minimum Substrate	Maximum Gap Size (mm)	Seal Position	Minimum Seal Depth	Backing	Minimum Backing	Fire Res (min		
Substrate	Thickness (mm)			(mm)	Material	Depth (mm)	E	EI	
AAC or Concrete	150	150	Unexposed face	1 (DFT)	Stone Mineral Wool* Compressed by 20%	100	240	180	

^{* 80} kg/m³



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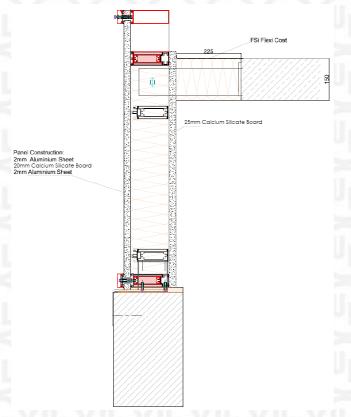
Certificate No. UL-EU-00642-CPR

Page 7/8

Date of Issue 2014-09-29

Flexi Coat: Perimeter Joint Seal/Cavity Barriers Between Floor End and Curtain Walling

Construction details:



Cubatuata	Minimum Substrate	Maximum Con Sizo	Seal	Minimum Seal	Backing	Minimum Backing Depth (mm)	Fire Resistance (mins.)	
Substrate	Thickness (mm)	Gap Size (mm)	Position	Depth (mm)	Material		E	EI
AAC or Concrete/ Curtain Wall#	150	225	Top of backing material. Overlapping floor and curtain wall at minimum	1 (DFT)	Stone Mineral Wool* Compressed by 20%	100	120	120

^{* 80} kg/m³



[#]Curtain wall comprising an aluminium profile system of mullions and transoms, with 1 x 25 mm thick layer of Calcium silicate board mounted on the inside of the spandrel panel system and a stonewool based core within the spandrel panel.

Certification Mark UL-EU mark

Certificate No. UL-EU-00642-CPR

Page 8/8

Date of Issue 2014-09-29

The UL-EU Mark, as displayed below, shall appear on certified products only. Minimum size is not specified, as long as the Mark is legible. The following is suggested.



The minimum height of the registered trademark symbol ® shall be 1 mm. When the overall diameter of the UL-EU Mark is less than 9.5 mm, the trademark symbol may be omitted if it is not legible to the naked eye.

The UL-EU Mark may appear on a label, nameplate, or may be cast, stamped or molded into the product. When appearing on a label or nameplate, the Manufacturer's name or trademark along with a model number are also required on that same label or nameplate. If cast, stamped or molded, the Manufacturer's name or trademark and model number shall also appear elsewhere on the product.

All content shall be in accordance with the details provided on this UL-EU Certificate.

PROCUREMENT

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