UL-EU CERTIFICATE

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UL-EU-01302-EN

Issue date
18-11-2024

Issue No.
1

Re-Issue date
-

Expiry date
17-11-2034

4705

Certificate Holder:
Greentech Thermal Insulation Products Mfg Co LLC

Address:
PO Box 3350
New Industrial Area
Umm AL Quwain
United Arab Emirates

Product:
HEATSHIELD S600

Places of production:
U/002

Standard:

EAD 350141-00-1106, September 2017

Authorised Signatory:

Chris Johnson

Issued by UL International (UK) Ltd

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shall remain valid through the Expiration date, unless a Standard identified on this Certificate is amended or withdrawn prior to that date or there is a non-compliance with the Agreement.

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This certificate relates to the use of HEATSHIELD S600, is a fire-resistant silicone sealant used to form linear gap seals where gaps are present in wall and floor constructions.
The detailed scope is given in pages 4 to 8 of this Certificate. This shows the thickness and acceptable dimensions, substrates and orientations required to provide fire resistance periods of up to 120 minutes (EI 120).

The product is certificated on the basis of:

i) Inspection and surveillance of factory production control by UL
ii) Fire resistance test data in accordance with EN 1366-4:2021
iii) Classification in accordance with EN 13501-2:2016
iv) Durability and Serviceability as defined in EAD 350141-00-1106, September 2017.

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I. SPECIFIC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

1. HEATSHIELD S600 is a fire-resistant silicone sealant used to form linear gap seals where gaps are present in wall and floor constructions.

2. The HEATSHIELD S600 is supplied in liquid form contained within 300 ml cartridges and 600 ml foil packs. The sealant is gunned into the aperture in the separating element/elements to a specified depth utilising a backing material.

3. Greentech Thermal Insulation Products Mfg Co LLC submitted a written declaration that HEATSHIELD S600 does not contain substances which have to be classified as dangerous according to Directive 67/548/EEC and Regulation (EC) No 1272/2008 and listed in the "Indicative list on dangerous substances" of the EGDS - taking into account the installation conditions of the construction product and the release scenarios resulting from there.

   In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

4. The use category of HEATSHIELD S600 in relation to BWR 3 (Hygiene, health and environment) is IA1 S/W2.

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2 Specification of the intended uses of the product in accordance with the applicable European Assessment Document (Hereinafter EAD): EAD 350141-00-1106: 2017

Detailed information and data is given in Annex A.

The intended use of system HEATSHIELD S600 is to reinstate the fire resistance performance of gaps and joints in rigid wall constructions, gaps and joints between rigid floor constructions.

1) The specific elements of construction that the system HEATSHIELD S600 may be used to provide a gap or joint seal in, are as follows:

Rigid walls:	The wall must have a minimum thickness of 120 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 450 kg/m^3.
Rigid floors:	The floor must have a minimum thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m^3.

The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

2) The system HEATSHIELD S600 may be used to provide a linear joint or gap seal with specific supporting constructions and substrates (for details see Annex A).

3) The maximum permitted joint/gap width for system HEATSHIELD S600 is 50 mm.

4) The maximum movement capability of system HEATSHIELD S600 is ≤ 7.5% (not tested to EAD 350141-00-1106).

5) The provisions made in this European Technical Assessment are based on an assumed working life of the HEATSHIELD S600 of 10 years, provided that the conditions laid down in the manufacturers datasheet and instructions for the packaging/transport/ storage/installation/use/repair are met. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

6) Type Z_1: intended for uses in internal conditions with humidity equal to or higher than 85% RH, excluding temperatures below 0°C (no exposure to frost or changing frost-thaw but permanent or alternating condensation). Since the requirements for Type Z_1 are met, also the requirements for Type Z_2 are fulfilled.

UL Solutions
Form-ULID-006104 V8.0
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3 Performance of the product and references to the methods used for its assessment

Product-type: Sealant		Intended use: Linear Joint & Gap Seal
Basic requirement for construction work	Essential characteristic	Performance
BWR 2 Safety in case of fire		
EN 13501-1	Reaction to fire	Class E
EN 13501-2	Resistance to fire	Annex A
BWR 3 Hygiene, health and environment		
Declaration of manufacturer & EN 16516	Content, emission and/or release of dangerous substances	Use categories: IA1, S/W2 Declaration of manufacturer
EN 1026:2000	Air permeability (material property)	No performance determined
EAD 350141-00-1106, Annex C & EN 12390-8	Water permeability (material property)	No performance determined
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 determined
EOTA TR 001:2003 ISO 11600 & EAD 350141-00-1106, Clause 2.2.13	Adhesion	No performance determined
EAD 350141-00-1106, Clause 2.2.12	Durability	Z_1
EAD 350141-00-1106, Clause 2.2.13	Movement capacity	No performance determined
EAD 350141-00-1106, Clause 2.2.14	Cycling of perimeter seals for curtain walls	No performance determined
EAD 350141-00-1106, Clause 2.2.15	Compression set	No performance determined
EAD 350141-00-1106, Clause 2.2.16	Linear expansion on setting	No performance determined
BWR 5 Protection against noise		
EN 10140-1,2,4,5/ EN ISO 717-1	Airborne sound insulation	No performance determined
BWR 6 Energy economy and heat retention		
EN 12664, EN 12667, EN 12939, EN ISO 8990, EN ISO 6946, EN ISO 10456	Thermal properties	No performance determined
EN ISO 12572, EN 12086, EN ISO 10456	Water vapour permeability	No performance determined

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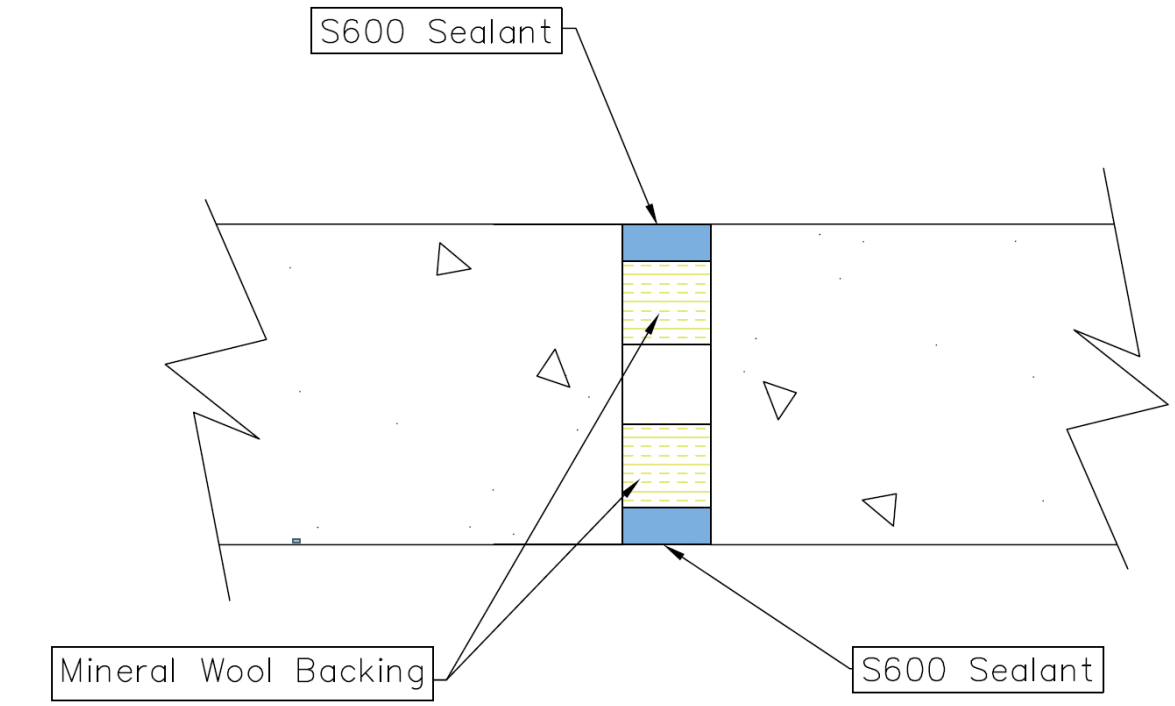
ANNEX A – Resistance to Fire Classification – HEATSHIELD S600

A.1 Rigid wall constructions according to 1.2.1 with wall thickness of minimum 120 mm

A.1.1 Linear joint seals between walls (vertical)

Joint Seal: HEATSHIELD S600 to both sides of the wall backed with mineral stone wool (50kg/m^3) with a min. compression of 50% across the joint width. Backing material to be recessed from surface of wall to accommodate required sealant thickness.

Construction details:



A.1.1.1

Substrate	Sealant depth [mm]	Maximum joint width [mm]	Backing (minimum)	Classification
Concrete	12	20	45 mm depth	**EI 240-V-X-B-W10 to W20**
	17	35	40 mm depth	**EI 240-V-X-B-W10 to W35**
	25	50	35 mm depth	**EI 240-V-X-B-W10 to W50**

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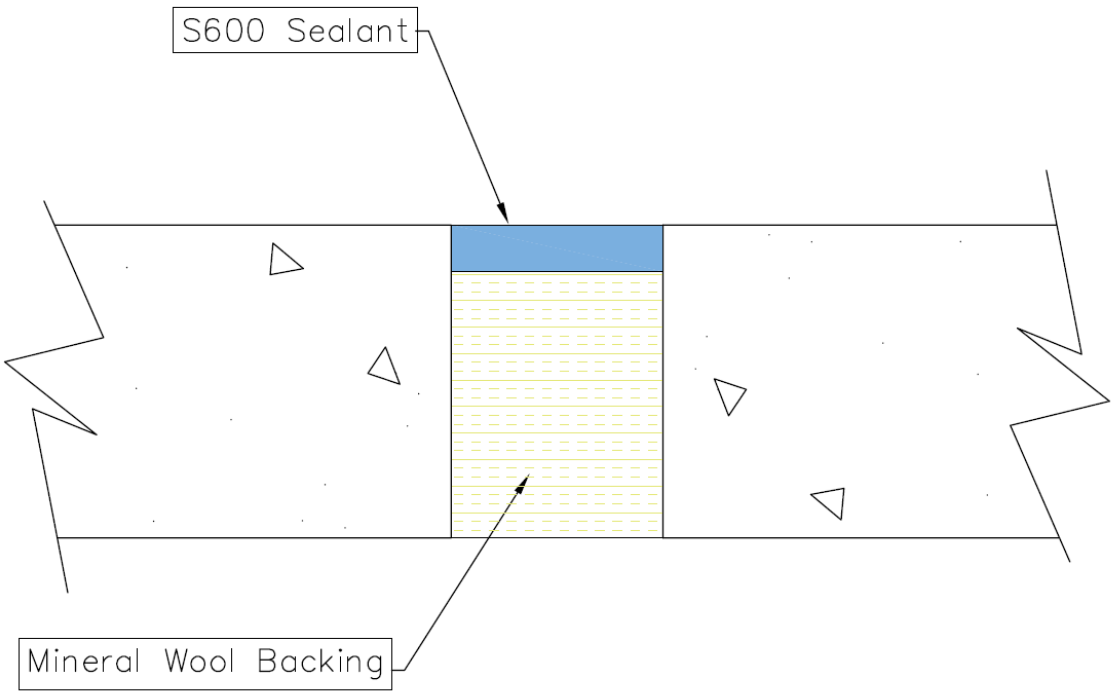
A.2 Rigid floor constructions according to 1.2.1 with floor thickness of minimum 150 mm

A.2.1 Linear joint or gap seal between floor slabs

Joint Seal: HEATSHIELD S600 applied flush to top side of floor backed with mineral stone wool (50kg/m^3) with a min. compression of 50% across the joint width. Backing material to be recessed from surface of floor to accommodate required sealant thickness.

Construction details:



A.2.1.1

Substrate	Sealant depth [mm]	Maximum joint width [mm]	Backing (minimum)	Classification
Concrete	12	25	138 mm depth	**EI 120-H-X-B-W 00 to W 25**
	25	50	125 mm depth	**EI 120-H-X-B-W 00 to W 50**

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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

The Production site may reproduce the Mark or obtain it from a UL authorized supplier. The list of UL authorized suppliers can be found on UL's online directory at www.ul.com.

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