

UL-EU CERTIFICATE

Certificate No. UL-EU-00834-A1
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Certificate Holder ASTROFLAME FIRESEALS LIMITED
UNIT 8 THE IO CENTRE
SEGENSWORTH
FAREHAM
PO15 5RU
United Kindgom

Manufacturer A/008

Certified Product Type Fire Stop – Coated Board
Product Trade Name Astro Batt & Coating
Trademark N/A
Rating/Classification See Appendix

Harmonised Technical Specifications ETAG 026-2 / EN 13501-2
Supporting Documentation ETA 14/0099, EC – CERTIFICATE OF CONSTANCY OF PERFORMANCE - 1121 – CPR – JA5026
Additional information Additional test evidence is held on file
Expiry date 2025-07-01

Director, Global Market Access Operations
Helena Y. Wolf

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shall remain valid through the Expiration date, unless a Standard identified on this Certificate is amended or withdrawn prior to that date or there is a non-compliance with the Agreement.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 Astro Batt & Coating for fire stopping where services penetrate floors and walls. The detailed scope is given in pages 3 to 10 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) ETA 14/099 EC – CERTIFICATE OF CONSTANCY OF PERFORMANCE 1121 – CPR – JA5026
- ii) Inspection and surveillance of factory production control by UL
- iii) Fire resistance test data in accordance with 1366-3: 2009
- iv) Classification in accordance with EN 13501-2
- v) Durability and Servicability as defined in ETAG 026-2

The durability class of Astro Batt & Coating is Z₁ - intended for use at internal conditions with high humidity, excluding temperatures below 0°C



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| | | |
|--|--|--|
| Product-type: Coating | | Intended use: Penetration Seal |
| Basic requirement for construction work | Basic Requirement | Basic requirement for construction work |
| BWR 1 Mechanical resistance and stability | | |
| - | None | - |
| BWR 2 Safety in case of fire | | |
| EN 13501-1 | Reaction to fire | Class F |
| EN 13501-2 | Resistance to fire | See page 6 |
| BWR 3 Hygiene, health and environment | | |
| 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 determined |
| EOTA TR 001:2003 ISO 11600 | Adhesion | No performance determined |
| BWR 5 Protection against noise | | |
| EN 10140-2/ EN ISO 717-1 | Airborne sound insulation | R _w (C;C _{tr})= 24(-2;-3) and See page 5 |
| EN 10140-3/ EN ISO 717-2 | Impact sound insulation | No performance determined |
| BWR 6 Energy economy and heat retention | | |
| EN 12664, EN 12667 or EN 12939 | Thermal properties | No performance determined |
| EN ISO 12572 EN 12086 | Water vapour permeability | No performance determined |
| General aspects relating to fitness for use | | |
| ISO 8339: 2005, ISO 9046: 2004 & ISO 7389: 2003 | Durability and serviceability | Z _i |
| BWR 7 Sustainable use of natural resources | | |
| - | - | No performance determined |

No performance determined



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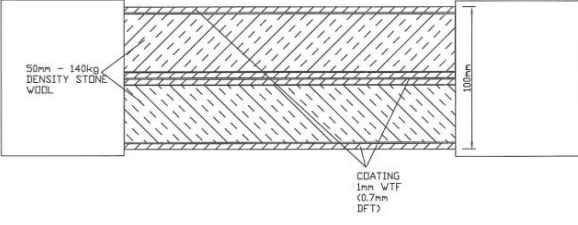
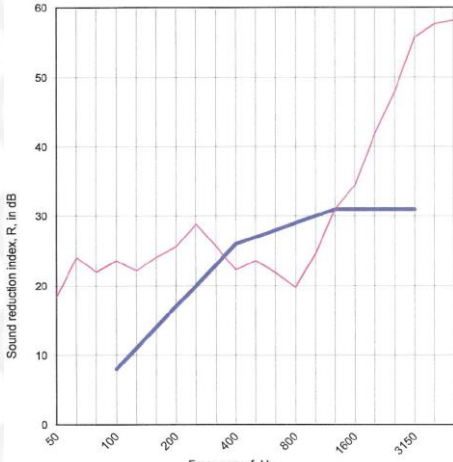
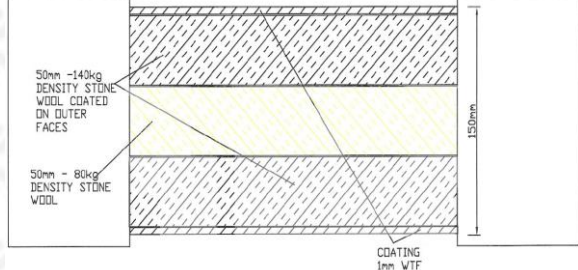
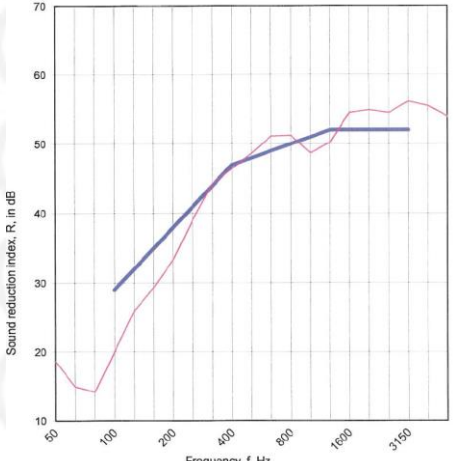
| Astro Batt & Coating (50 mm): Air Permeability according to BS EN 1026 | | | | |
|---|--|--|--|--|
| Pressure (Pa) | Results under positive chamber pressure | | Results under negative chamber pressure | |
| | Leakage (m³/h) | Leakage (m³/m²/h) | Leakage (m³/h) | Leakage (m³/m²/h) |
| 50 | 0.6 | 0.8 | 1.1 | 1.5 |
| 100 | 1.0 | 1.4 | 1.3 | 1.8 |
| 150 | 2.8 | 3.9 | 1.5 | 2.1 |
| 200 | 3.8 | 5.3 | 1.9 | 2.6 |
| 250 | 4.5 | 6.3 | 2.0 | 2.8 |
| 300 | 5.0 | 6.9 | 2.4 | 3.3 |
| 450 | 5.1 | 7.1 | 1.9 | 2.6 |
| 600 | 6.7 | 9.3 | 2.2 | 3.1 |



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Astro Batt & Coating: Acoustic performance according to BS EN ISO 10140-2:2010

| Configuration | $R_w(C; C_{tr})$ Specimen only, 1m ² | D_{new} Partition & Specimen, 14.2m ² |
|---|---|---|
|  | <p>27 (0; -2)</p>  | <p>37 (0; -2)</p> |
|  | <p>48 (-3; 16)</p>  | <p>58 (-3; 16)</p> |



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| Substrate | Minimum Substrate Thickness (mm) | Maximum Seal Size (mm) | Seal Position | Minimum Seal Depth (mm) | Incorporated seal | Service / Insulation** | Fire Resistance (mins.) | |
|---------------------------------------|----------------------------------|-------------------------|---------------|-------------------------|---|---|-------------------------|----|
| | | | | | | | E | EI |
| Drywall/ Masonry/ Concrete wall | 100 | 1200 high x 730 wide | Central | 100* | 15 mm deep by 15 mm wide annulus FSi HPE Sealant to both faces of the batt seal | Steel or Copper pipe 40 mm diameter and 1.5 – 14.2 mm wall thickness / 20 mm thick foil faced glass wool insulation (min 80 kg/m ³) | 90 | 60 |
| | | | | | | Steel or Copper pipe 40 - 159 mm diameter and 2.3 – 14.2 mm wall thickness / 30 mm thick foil faced glass wool insulation (min 80 kg/m ³) | 60 | 60 |
| | | | | | | Steel pipe 40 mm diameter and 1.5 – 14.2 mm wall thickness / 20 mm thick foil faced glass wool insulation (min 80 kg/m ³) | 90 | 60 |
| | | | | | | Steel pipe 40 - 159 mm diameter and 2.3 – 14.2 mm wall thickness / 30 mm thick foil faced glass wool insulation (min 80 kg/m ³) | 60 | 60 |
| | | | | | None | Electrical cables up to 21 mm diameter | 60 | 60 |
| | | | | | | Electrical cables 22-80 mm diameter | 60 | 45 |
| | | | | | | Steel cable trays and ladders | 60 | 60 |
| | | | | | | Telecommunication cables up to 21 mm diameter and in a bundle of up to 100 mm diameter | 60 | 60 |
| | | | | | | Unsheathed electrical cables up to 17 mm diameter | 60 | 30 |
| | | | | | | Unsheathed electrical cables 18-24 mm diameter | 60 | 15 |
| | | | | | | Steel or Copper conduits up to 16 mm diameter | 60 | 15 |
| | | | | | | Plastic conduits up to 16 mm diameter | 60 | 60 |

* Two layers of 50 mm batt

** Continuous through seal and full length of the pipe



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| Substrate | Minimum Substrate Thickness (mm) | Maximum Seal Size (mm) | Seal Position | Minimum Seal Depth (mm) | Incorporated seal | Service / Insulation | Fire Resistance (mins.) | |
|------------------------------|----------------------------------|-------------------------|---------------|------------------------------------|-------------------|--|-------------------------|-----|
| | | | | | | | E | EI |
| Masonry/ Concrete Wall | 150 | 1200 high x 730 wide | Central | 100* | None | Electrical cables up to 21 mm diameter insulated with FSi P40/40 stone wool insulation** 40 mm thick, 40 kg/m ³ | 120 | 120 |
| | | | | | | Electrical cables 22-80 mm diameter insulated with FSi P40/40 stone wool insulation** 40 mm thick, 40 kg/m ³ | 120 | 90 |
| | | | | | | Steel cable trays and ladders insulated with FSi P40/40 stone wool insulation** 40 mm thick, 40 kg/m ³ | 120 | 120 |
| | | | | | | Telecommunication cables up to 21 mm diameter and in a bundle of up to 100 mm diameter insulated with FSi P40/40 stone wool insulation** 40 mm thick, 40 kg/m ³ | 120 | 120 |
| | | | | | | Unsheathed electrical cables up to 24 mm diameter insulated with FSi P40/40 stone wool insulation** 40 mm thick, 40 kg/m ³ | 120 | 120 |
| | 600 high x 600 wide | Central | 50 | Any position within wall thickness | None | Steel or Copper pipe 108 mm diameter and 1.5 – 14.2 mm wall thickness / 40 mm thick stone wool insulation (min 140 kg/m ³)*** | 60 | 45 |
| | | | | | | Electrical cables up to 80 mm diameter insulated with 6 mm thick FSi Thermal Defense Wrap min. 300 mm long | 60 | 60 |
| | | | | | | Steel cable trays and ladders insulated with 6 mm thick FSi Thermal Defense Wrap min. 300 mm long | 60 | 60 |
| | | | | | | Telecommunication cables up to 21 mm diameter and in a bundle of up to 100 mm diameter insulated with 6 mm thick FSi Thermal Defense Wrap min. 300 mm long | 60 | 60 |
| | | | | | | Unsheathed electrical cables up to 24 mm diameter insulated with 6 mm thick FSi Thermal Defense Wrap min. 300 mm long | 60 | 60 |

* Two layers of 50 mm batt

** Interrupted at the seal and extending 200 mm from both faces of the seal

*** Interrupted at the seal and full length of the pipe



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| Substrate | Minimum Substrate Thickness (mm) | Maximum Seal Size (mm) | Seal Position | Minimum Seal Depth (mm) | Incorporated seal | Service / Insulation** | Fire Resistance (mins.) | |
|------------------------------|----------------------------------|-------------------------|--------------------------------------|-------------------------|-------------------|--|-------------------------|-----|
| | | | | | | | E | EI |
| Masonry/ Concrete Wall | 150 | 1200 high x 730 wide | Flush to both faces of wall | 150* | None | Electrical cables up to 21 mm diameter insulated with FSi P40/40 stone wool insulation 40 mm thick, 40 kg/m ³ | 120 | 120 |
| | | | | | | Electrical cables 22-80 mm diameter insulated with FSi P40/40 stone wool insulation 40 mm thick, 40 kg/m ³ | 120 | 90 |
| | | | | | | Steel cable trays and ladders insulated with FSi P40/40 stone wool insulation 40 mm thick, 40 kg/m ³ | 120 | 120 |
| | | | | | | Telecommunication cables up to 21 mm diameter and in a bundle of up to 100 mm diameter insulated with FSi P40/40 stone wool insulation 40 mm thick, 40 kg/m ³ | 120 | 120 |
| | | | | | | Unsheathed electrical cables up to 24 mm diameter insulated with FSi P40/40 stone wool insulation 40 mm thick, 40 kg/m ³ | 120 | 120 |

* Two layers of 60 mm batt separate by minimum 30 mm

** Interrupted at the seal and extending 200 mm from both faces of the seal



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| Substrate | Minimum Substrate Thickness (mm) | Maximum Seal Size (mm) | Seal Position | Minimum Seal Depth (mm) | Incorporated seal | Service / Insulation | Fire Resistance (mins.) | |
|----------------|----------------------------------|------------------------|-----------------------|-------------------------|-------------------|----------------------|-------------------------|----|
| | | | | | | | E | EI |
| Concrete Floor | 150 | 1600 x 700 | Flush to top of floor | 50 | None | None | 60 | 60 |



Appendix UL-EU Certificate

| | |
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| Certification Mark | UL-EU mark |
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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 Certificate 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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