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appointed according to Article 29 of Construction Products Regulation 2011 as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020

## UK Technical Assessment

## 0843-UKTA-24/0038 of 30/09/2024

Technical Assessment Body Issuing the UKTA:	UL International (UK) Ltd
Trade name of the construction product	Astro Intu Mastic
Product family to which the construction product belongs	Fire Stopping and Fire Sealing Products – Linear Joint and Gap Seals
Manufacturer	Astroflame Fireseals Ltd Unit 8, The I.O. Centre Stephenson Road Segensworth Fareham Hampshire PO15 5RU
Manufacturing plant(s)	A/008
This UK Technical Assessment contains	35 pages including 3 Annexes which form an integral part of this assessment.
This UK Technical Assessment* is is issued, on the basis of	EAD 350141-00-1106, September 2017

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\* in accordance with Construction Products Regulation 2011 as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020

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#### I. SPECIFIC PARTS OF THE UK TECHNICAL ASSESSMENT

#### 1 <u>Technical description of the product</u>

- 1) Astro Intu Mastic is an acrylic based sealant used to form linear gap seals where gaps are presented in wall and floor constructions and linear joint seals where wall and floor constructions abut.
- 2) Astro Intu Mastic is supplied in liquid form contained within 310 ml & 380 ml cartridges, 600 ml foils or in 5, 10, 20 or 25 litre tubs. The sealant is gunned or trowelled into the aperture in or between the separating element/elements to a specified depth using various backing materials.
- Applicant has submitted a written declaration that Astro Intu Mastic does not contain substances which have to be classified as dangerous according to article 59 (1, 10) of the Regulation (EC) No 1907/2006 (REACH).

In addition to the specific clauses relating to dangerous substances contained in this UK technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g. transposed UK 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 Astro Intu Mastic in relation to BWR 3 (Hygiene, health and environment) is IA2

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

Detailed information and data is given in Annex A.

- 1) The intended use of system Astro Intu Mastic is to reinstate the fire resistance performance of gaps in and joints in and between flexible and rigid wall constructions, gaps in and joints between rigid floor constructions.
- 2) The specific elements of construction that the system Astro Intu Mastic may be used to provide a gap or joint seal in, are as follows:
  - a. Flexible walls: The wall must have a minimum thickness of 75 mm and comprise steel studs or timber studs lined on both faces with minimum 1 layer of 12.5 mm thick boards.
    b. Rigid walls: The wall must have a minimum thickness of 75 mm and comprise concrete, aerated concrete or masonry with a minimum density of 650 kg/m<sup>3</sup>.
    c. 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<sup>3</sup>.

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

- 3) The System Astro Intu Mastic may be used to provide a linear joint or gap seal with specific supporting constructions and substrates (for details see Annex A).
- 4) The maximum permitted joint/gap width for system Astro Intu Mastic is 60 mm.
- 5) The maximum movement capability of system Astro Intu Mastic is ≤ 7.5% depending on the application and installation (for details see Annex A).

- 6) The provisions made in this UK Technical Assessment are based on an assumed working life of the Astro Intu Mastic of 25 years, provided that the conditions laid down in the product datasheet 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.
- 7) Type Z<sub>1</sub>: Intended for use in internal conditions with humidity equal to or higher than 85% RH excluding temperatures below 0°C, without exposure to rain or UV.

3 <u>Performance of the product and references to the methods used for its assessment</u>	3
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Product-type: Sealant		Intended use: Linea	r Joint and Gap Seal
Assessment method	Essential characteristic		Product performance
BWR 2 Safety in case of fire			
EN 13501-1	Reactior	n to fire	No performance determined
EN 13501-2	Resistanc	ce to fire	Annex A
	BWR 3 Hygiene, hea	Ith and environment	
Declaration of manufacturer & EN 16516	Content, emission dangerous s	and/or release of substances	Use categories: IA2 Declaration of manufacturer
EN 1026:2000	Air permeability (n	naterial property)	Annex B
EAD 350141-00-1106, Annex C & EN 12390-8	Water permeability	(material property)	No performance determined
	BWR 4 Sat	fety in use	
EOTA TR 001:2003	Mechanical resista	ance and stability	No performance determined
EOTA TR 001:2003	Resistance to im	pact/movement	No performance determined
EOTA TR 001:2003 ISO 11600 & EAD 350141- 00-1106, Clause 2.2.13	Adhe	sion	7.5P
EAD 350141-00-1106, Clause 2.2.12	Dural	bility	Type Z <sub>1</sub>
EAD 350141-00-1106, Clause 2.2.13	Movement	capability	Annex A
EAD 350141-00-1106, Clause 2.2.14	Cycling of perimete wa	er seals for curtain lls	No performance determined
EAD 350141-00-1106, Clause 2.2.15	Compres	sion set	No performance determined
EAD 350141-00-1106, Clause 2.2.16	Linear expansi	on on setting	No performance determined
BWR 5 Protection against noise			
EN 10140-1,2,4,5/ EN ISO 717-1	Airborne soui	nd insulation	Annex C
BWR 6 Energy economy and heat retention			n
EN 12664, EN 12667, EN 12939, EN ISO 8990, EN ISO 6946, EN ISO 10456	Thermal p	roperties	No performance determined
EN ISO 12572, EN 12086, EN ISO 10456	Water vapour	permeability	No performance determined

#### 4 ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE (HEREINAFTER AVCP) SYSTEM APPLIED, WITH REFERENCE TO ITS LEGAL BASE

According to the Statutory Instrument 2019 No. 465 – made 5<sup>th</sup> March 2019 and cited as the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and coming into force on exit day and Statutory Instrument 2020 No. 1359 – made 26<sup>th</sup> November 2020 and cited as the Construction Products (Amendment etc.) (EU Exit) Regulations 2020 and coming into force immediately before the 2019 Regulations come into force, on the procedure for attesting the conformity of construction products as regards fire stopping, fire sealing and fire protective products, published as 'Pre-Exit' European Assessment Documents, (see https://www.gov.uk/guidance/pre-exit-european-assessment-documents-construction-products), the system of assessment and verification of constancy of performance (see Annex V to Construction Products Regulation 2011 as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the following table(s) apply.

Product(s)	Intended use(s)	Level(s) or class(es)	System(s)
Fire stopping and Fire Sealing Products	For fire compartmentation and/or fire protection or fire performance	Any	1

#### 5 <u>Technical details necessary for the implementation of the AVCP system, as provided for in the applicable</u> <u>EAD</u>

Tasks of the manufacturer:

#### Factory production control

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall ensure that the product is in conformity with this UK technical Assessment.

The manufacturer may only use initial / raw / constituent materials stated in the technical documentation of this UK Technical Assessment.

The factory production control shall be in accordance with the Control Plan of 18/10/2022 relating to the UK Technical Assessment 0843-UKTA-24/0038 issued on 30/09/2024 which is part of the technical documentation of this UK Technical Assessment. The "Control Plan" is laid down in the context of the factory production control system operated by the manufacturer and deposited at UL International (UK) Ltd.

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the Control Plan.

Other tasks of the manufacturer

Additional information

The manufacturer shall provide a technical data sheet and an installation instruction with the following minimum information:

- (a) Technical data sheet:
  - Field of application:
  - Building elements for which the linear joint is suitable, type and properties of the building elements like minimum thickness, density, and in case of lightweight constructions the construction requirements.
  - Limits in size, minimum thickness etc. of the linear joint
  - Construction of the linear joint including the necessary components and additional products (e.g. backfilling material) with clear indication whether they are generic or specific.
  - Services which the linear joint is suitable, type and properties of the services like material, diameter, thickness etc. in case of pipes including insulation materials; necessary/allowed supports/fixings (e.g. pipe trays)
- (b) Installation instruction:
  - Steps to be followed
  - Procedure in case of retrofitting
  - Stipulations on maintenance, repair and replacement
- 6 Issued on:

30<sup>th</sup> September 2024

Report by:

P. Foster Project Engineer Associate Built Environment

For and on behalf of UL International (UK) Ltd.

Reviewed by:

lilling

C. Johnson Senior Staff Engineer Built Environment

## ANNEX A – Resistance to Fire Classification – Astro Intu Mastic

#### A.1 Flexible and rigid wall constructions with wall thickness of minimum 75 mm

#### A.1.1 Double sided linear joint seal

Joint Seal: Astro Intu Mastic to both sides of the wall, backed with a 50 mm depth of stone wool or ceramic wool (45kg/m³), joint widths up to 25 mm. Construction details: 1. <u>Astro Intu Mastic</u> 2. <u>Backing Material</u> 3. <u>Flexible Wall</u>

#### A.1.1.1

Substrate	Depth (mm)	Backing Material	Classification
Flexible / flexible	12 5	Stone wool or ceramic wool (50mm	E 60 – V – X – F – W 00 to W 25
Masonry / masonry	12.5	45kg/m³)	EI 45 – V – X – F – W 00 to W 25

#### A.2 Flexible and rigid wall constructions with wall thickness of minimum 120 mm

#### A.2.1 Double sided linear joint seal



#### A.2.1.1

Substrate	Depth (mm)	Backing Material	Classification
Flexible / flexible	12 5	PE backing rod, glass wool, stone	
Masonry / masonry	12.5	wool or ceramic wool	r = 120 - v - x - r - w = 00 to w 20

#### A.2.2 Double sided head of wall joint seal



#### A.2.2.1

Substrate	Depth (mm)	Backing Material	Classification
Flexible / concrete	25	Steel head track	FI 120 – T – X – F – W 00 to W 20
Masonry / concrete	25		

#### A.3 Rigid wall constructions with wall thickness of minimum 100 mm

#### A.3.1 Single sides linear joint seal



#### A.3.1.1

Substrate	Depth (mm)	Backing Material	Classification
	25	DE basking red class week stone	E 120 – V – X – F – W 00 to W 50 EI 60 – V – X – F – W 00 to W 50
Concrete / masonry	2:1 ratio (width:depth) & Min. 10	PE backing rod, glass wool, stone wool or ceramic wool	E 120 – V – X – F – W 00 to W 50 El 45 – V – X – F – W 00 to W 50



#### A.3.2 Single sided linear joint seal with steel faced wall

#### A.3.2.1

Substrate	Depth (mm)	Backing Material	Classification
Constato or	10	DE basking red class week stone	E 120 – V – X – F – W 00 to W 20 EI 20 – V – X – F – W 00 to W 20
Concrete or masonry / steel	2:1 ratio (width:depth) & Min. 10	wool or ceramic wool	E 45 – V – X – F – W 00 to W 50 El 20 – V – X – F – W 00 to W 50



#### A.3.3 Single sided linear joint seal with timber faced wall

#### A.3.3.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete or	2:1 ratio (width:depth) & Min. 10	PE backing rod, glass wool, stone	E 30 – V – X – F – W 00 to W 50 El 20 – V – X – F – W 00 to W 50
masonry / timber	25	wool or ceramic wool	EI 45 – V – X – F – W 00 to W 50

#### A.4 Rigid wall constructions with wall thickness of minimum 150 mm

#### A.4.1 Double sided linear joint seal



#### A.4.1.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete / masonry	30	Stone wool or ceramic wool (≥40mm ≥45kg/m³)	El 240 – V – X – F – W 00 to W 60

#### A.4.2 Double sided linear joint seal



#### A.4.2.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete / masonry	25	PE backing rod, glass wool, stone wool or ceramic wool	El 240 – V – X – F – W 00 to W 50





#### A.4.3.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete or	30	Stone wool or ceramic wool	E 240 – V – X – F – W 00 to W 60
masonry / steel		(≥40mm ≥45kg/m³)	El 60 – V – X – F – W 00 to W 60



#### A.4.4 Double sided linear joint seal with timber faced wall

#### A.4.4.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete or masonry / timber	30	Stone wool or ceramic wool (≥40mm ≥45kg/m³)	EI 60 – V – X – F – W 00 to W 60



#### A.4.5 Double sided linear joint seal with movement

#### A.4.5.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete / masonry	20	PE backing rod, glass wool, stone wool or ceramic wool	E 240 – V – M 25* – F – W 00 to W 60 El 120 – V – M 25* – F – W 00 to W 60

\*25% movement capability for fire classification only. Product limited to 7.5% for end use application.



#### A.4.6 Single sided linear joint seal with movement

#### A.4.6.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete / masonry	5	Stone wool or ceramic wool (≥75mm ≥60kg/m³, compressed to 60%)	E 240 – V – M 25* – F – W 00 to W 60 El 120 – V – M 25* – F – W 00 to W 60

\*25% movement capability for fire classification only. Product limited to 7.5% for end use application.

#### A.5 Rigid floor constructions with floor depth of minimum 150 mm

#### A.5.1 Single sided linear joint seal in floor from underside



#### A.5.1.1

Substrate	Depth (mm)	Backing Material	Classification
	25		E 240 – H – X – F – W 00 to W 50 EI 90 – H – X – F – W 00 to W 50
Concrete / masonry	2:1 ratio (width:depth) & Min. 10	wool or ceramic wool	E 240 – H – X – F – W 00 to W 50 El 45 – H – X – F – W 00 to W 50

#### A.5.2 Single sided linear joint seal in floor from top side



#### A.5.2.1

Substrate	Depth (mm)	Backing Material	Classification
	25		E 240 – H – X – F – W 00 to W 50 EI 90 – H – X – F – W 00 to W 50
Concrete / masonry	2:1 ratio (width:depth) & Min. 10	wool or ceramic wool	E 240 – H – X – F – W 00 to W 50 El 45 – H – X – F – W 00 to W 50



#### A.5.3 Single sided linear joint seal in steel faced floor from underside

#### A.5.3.1

Substrate	Depth (mm)	Backing Material	Classification
<b>C</b> 1	25		E 240 – H – X – F – W 00 to W 50 El 90 – H – X – F – W 00 to W 50
concrete or masonry / steel	2:1 ratio (width:depth) & Min. 10	wool or ceramic wool	E 120 – H – X – F – W 00 to W 50 El 30 – H – X – F – W 00 to W 50



#### A.5.4 Single sided linear joint seal in steel faced floor from top side

#### A.5.4.1

Substrate	Depth (mm)	Backing Material	Classification
Commente ou	25		E 240 – H – X – F – W 00 to W 50 El 90 – H – X – F – W 00 to W 50
masonry / steel	2:1 ratio (width:depth) & Min. 10	wool or ceramic wool	E 120 – H – X – F – W 00 to W 50 El 30 – H – X – F – W 00 to W 50



#### A.5.5 Single sided linear joint seal in timber faced floor from underside

#### A.5.5.1

Substrate	Depth (mm)	Backing Material	Classification
	25		EI 45 – H – X – F – W 00 to W 50
Concrete or masonry / timber	2:1 ratio (width:depth) & Min. 10	PE backing rod, glass wool, stone wool or ceramic wool	EI 30 – H – X – F – W 00 to W 50



#### A.5.6 Single sided linear joint seal in timber faced floor from top side

#### A.5.6.1

Substrate	Depth (mm)	Backing Material	Classification
	25		EI 45 – H – X – F – W 00 to W 50
Concrete or masonry / timber	2:1 ratio (width:depth) & Min. 10	PE backing rod, glass wool, stone wool or ceramic wool	EI 30 – H – X – F – W 00 to W 50



#### A.5.7 Single sided linear joint seal in floor from top side with movement

#### A.5.7.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete / masonry	5	Stone wool or ceramic wool (≥100mm ≥60kg/m³, compressed to 60%)	El 240 – H – M 25* – F – W 00 to W 60

\*25% movement capability for fire classification only. Product limited to 7.5% for end use application.



#### Double sided linear joint seal in floor with movement

#### A.5.8.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete / masonry	20	PE backing rod, glass wool, stone wool or ceramic wool	E 240 – H – M 17* – F – W 00 to W 60 El 60 – H – M 17* – F – W 00 to W 60

\*17% movement capability for fire classification only. Product limited to 7.5% for end use application.

#### A.6 Head of wall with thickness of minimum 150 mm

#### A.6.1 Single sided head of wall joint in floor



#### A.6.1.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete / masonry	25	PE backing rod, glass wool, stone wool or ceramic wool	E 240 – T – X – F – W 00 to W 50 EI 90 – T – X – F – W 00 to W 50
	2:1 ratio (width:depth) & Min. 10		E 240 – T – X – F – W 00 to W 50 EI 45 – T – X – F – W 00 to W 50

#### A.6.2 Single sided head of wall joint with steel face



#### A.6.2.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete or masonry / steel	25	PE backing rod, glass wool, stone wool or ceramic wool	E 240 – T – X – F – W 00 to W 50 EI 90 – T – X – F – W 00 to W 50
	2:1 ratio (width:depth) & Min. 10		E 240 – T – X – F – W 00 to W 50 EI 30 – T – X – F – W 00 to W 50

#### A.6.3 Single sided head of wall joint with timber face



#### A.6.3.1

Substrate	Depth (mm)	Backing Material	Classification
	25		EI 45 – T – X – F – W 00 to W 50
Concrete or masonry / timber	2:1 ratio (width:depth) & Min. 10	PE backing rod, glass wool, stone wool or ceramic wool	EI 30 – T – X – F – W 00 to W 50



#### A.6.4 Double sided head of wall joint with movement

#### A.6.4.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete / masonry	20	PE backing rod, glass wool, stone wool or ceramic wool	E 240 – T – M 17* – F – W 00 to W 60 El 60 – T – M 17* – F – W 00 to W 60

\*17% movement capability for fire classification only. Product limited to 7.5% for end use application.



#### A.6.5 Double sided head of wall joint with movement

#### A.6.5.1

Substrate	Depth (mm)	Backing Material	Classification
Concrete / masonry	5	Stone wool or ceramic wool (≥70mm (x2) ≥60kg/m³, compressed to 60%)	El 240 – T – M 25* – F – W 00 to W 60

\*25% movement capability for fire classification only. Product limited to 7.5% for end use application.

Product tested	25 mm thick x 30 mm wide Astro Intu Mastic intumescent sealant			
	Result			
	Pressure (Pa)	Leakage (m <sup>3</sup> /h)	Leakage (m <sup>3</sup> /m <sup>2</sup> /h)	
	50	0.0	0.0	
	100	0.0	0.0	
	150	0.1	2.8	
Results under negative	200	0.1	2.8	
chamber pressure	250	0.1	2.8	
	300	0.0	0.0	
	450	0.1	2.8	
	600	0.1	2.8	
	50	0.0	0.0	
	100	0.0	0.0	
	150	0.0	0.0	
Results under positive	200	0.0	0.0	
chamber pressure	250	0.0	0.0	
	300	0.0	0.0	
	450	0.1	2.8	
	600	0.1	2.8	

## ANNEX B – Air Permeability - Astro Intu Mastic

### ANNEX C – Airborne Sound Insulation - Astro Intu Mastic



#### C.1 Astro Intu Mastic at 15 mm deep in the following configuration

BWR 5 Protection against noise			
Assessment method	Essential characteristic	Product performance	
EN 10140-1,2,4,5/ EN ISO 717-1	Airborne sound insulation	Rw (C;Ctr)= 63(-1;-7)	



#### C.2 Astro Intu Mastic at 25 mm deep in the following configuration

# BWR 5 Protection against noise Assessment method Essential characteristic Product performance EN 10140-1,2,4,5/ EN ISO 717-1 Airborne sound insulation Rw (C;Ctr)= 63(-1;-7)