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Authorised and notified  
according to Article 29 of the  
Regulation (EU)  
No 305/2011 of the European  
Parliament and of the Council  
of 9 March 2011

MEMBER OF EOTA



## European Technical Assessment ETA-20/1089 of 2020/12/09

### I General Part

#### Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

**Trade name of the construction product:**

Astro Intu Mastic

**Product family to which the above construction product belongs:**

Fire Stopping, Fire Sealing & Fire Protective Products.  
Fire Retardant Products.

**Manufacturer:**

Astroflame (fireseals) Limited  
Unit 8 The IO Centre  
Stephenson Road  
Segensworth  
Fareham  
Hampshire  
PO15 5RU

**Manufacturing plant:**

E055

**This European Technical Assessment contains:**

13 pages including 3 annexes which form an integral part of the document

**This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:**

EAD 350141-00-1106 – Linear Joint and Gap Seals: Issue September 2017.

**This version replaces:**

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## **1. Technical Description of the Product**

- 1) Astro Intu Mastic is an acrylic based sealant used to form linear gap seals where gaps are present in wall and floor constructions and linear joint seals where wall and floor constructions abut.
- 2) Astro Intu Mastic has slight intumescent properties that cause it to swell on heating.
- 3) The Astro Intu Mastic is supplied in liquid form contained within 310 ml & 380ml cartridges, 600ml 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 utilizing various backing materials.
- 4) A Polyethylene backing rod is utilized as a depth gauge. Reaction to Fire classification 'F'

## 2. Specification Of The Intended Use In Accordance With The Applicable European Assessment Document (EAD)

### 2.1 Intended Use

The intended use of system Astro Intu Mastic is to reinstate the fire resistance performance of gaps in and joints between rigid and flexible wall constructions, gaps in and joints between rigid floor constructions.

- 1) 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:

Rigid Floors: The floor must have a minimum thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>.

Rigid walls: The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>.

Flexible walls The wall must have a minimum thickness of 120 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of 12.5 mm thick, 'Type F' Gypsum boards according to EN 520. In timber stud walls, no part of the penetration shall be closer than 100 mm to a stud, the cavity must be closed between the penetration seal and the stud and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1, is provided within the cavity between the penetration seal and the stud.

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

- 2) 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 C).
- 3) The maximum permitted joint/gap width for system Astro Intu Mastic is 50 mm.
- 4) The maximum movement capability of system Astro Intu Mastic is  $\leq 7.5\%$
- 5) The provisions made in this European Technical Assessment are based on an assumed working life of the Astro Intu Mastic of 10 years, provided that the conditions laid down in sections 4.2/5.1/5.2 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 or the Technical Assessment Body, 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.

### 2.2 Use Category

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. Performance Of The Product And References To The Methods Used For Its Assessment

	<b>BWR</b>	<b>Characteristic</b>	<b>Assessment of characteristic</b>
	2	<b>Safety in case of fire</b>	
		Reaction to fire	No performance assessed
		Resistance to fire	See 1.2 & Annex C
	3	<b>Hygiene, Health and the Environment</b>	
		Air permeability	See clause 2.1
		Dangerous substances	See clause 2.2
	4	<b>Safety in use</b>	
		Durability and serviceability	See clause 3.1
		Airborne sound insulation	See clause 3.2

#### 3.1 Safety in case of fire

##### 3.1.1 Reaction to fire

No performance assessed.

##### 3.1.2 Resistance to fire

System Astro Intu Mastic has been tested in accordance with BS EN 1366-4: 2006 based upon the test results and the field of direct application specified within EN 1366-4: 2006, the system Astro Intu Mastic has been classified in accordance with EN 13501-2, as given in Annex C:

The seals may only be used in the elements of construction described in Annex C and against the substrates described in Annex C.

Provisions shall be taken such that floor joint seals cannot be stepped on e.g. by covering with wire mesh or floor finishes.

#### 3.2 Hygiene Health and the Environment

##### 3.2.1 Air permeability

System Astro Intu Mastic has been tested in accordance with BS EN 1314-1 to provide the following results:

Product tested				
Pressure (Pa)	Results under positive chamber pressure		Results under negative chamber pressure	
	Leakage (m <sup>3</sup> /h)	Leakage (m <sup>3</sup> /m <sup>2</sup> /h)	Leakage (m <sup>3</sup> /h)	Leakage (m <sup>3</sup> /m <sup>2</sup> /h)
50	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0
150	0.0	0.0	0.1	2.8
200	0.0	0.0	0.1	2.8
250	0.0	0.0	0.1	2.8
300	0.0	0.0	0.0	0.0
450	0.1	2.8	0.1	2.8
600	0.1	2.8	0.1	2.8

### 3.2.2 Dangerous substances

Astroflame (fireseals) Limited has presented a declaration that Astro Intu Mastic does not contain any substance of high concern with regards to REACH Regulations and are compliant with the requirements reference to <http://ec.europa.eu/enterprise/construction/cpd-ds/index.cfm>

Confirmation has further been declared that all dangerous chemical substances  $\geq 1.0$  % w/w as well as all toxic, carcinogenic, toxic for reproduction and mutagenic chemical substances  $\geq 0.1$  % w/w (Status: 29. adaption – 2004/73/EG – of the EU directive 67/548/EEC - classification, packaging and labeling of dangerous substances) are stated in the Astro Intu Mastic safety data sheets (according to 91/155/EEC including amendments) and have been considered for the classification of the products according to the directive 1999/45/EG (classification of preparations, including amendments).

All dangerous chemical substances are below the classification limits of 67/548/EEC.

In addition to the specific clauses relating to dangerous substances contained in this European technical approval, 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.

## 3.3 Safety in Use

### 3.3.1 Durability and serviceability

Astro Intu Mastic has been tested in accordance with EOTA Technical Report - TR024 – Edition November 2006, for the type Z1 use category specified in EAD 350141-00-1104, and the results of the tests have demonstrated suitability for penetration seals 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.

### 3.3.2 Airborne sound insulation

The results of the test provided the following single number rating according to BS EN 10142-2:

R<sub>w</sub> (C;Ctr) = 38(-2;-7)

#### **4. Assessment And Verification Of Constancy Of Performance (Hereinafter AVCP) System Applied, With References To Its Legal base**


According to the decision 1999/454/EC of the European Commission the system of assessment and verification of constancy of performance (see Annex V to the Regulation (EU) No 305/2011) given in the following table apply:

<b>Products</b>	<b>Intended use/s</b>	<b>System</b>
Fire stopping and fire sealing products	For fire compartmentation and / or fire protection or fire performance	System 1

#### **5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD**

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark A/S prior to CE marking

Issued in Copenhagen on 2020-12-09 by



Thomas Bruun  
Managing Director, ETA-Danmark

## **Annex A**

### **Reference Documents**

EN 13501-2	Fire classification of construction products and building elements – Part 2: Classification using test data from fire resistance tests
EOTA TR 024	Characterization, Aspects of Durability and Factory Production Control for Reactive Materials, Components and Products



## **Annex B**

### **Description of Product and Product Literature**

#### **Astro Intu Mastic**

A detailed specification of the product is contained in document "Evaluation Report" relating to the European Technical Assessment ETA 14/0050 issued on 18/2/14, of Astro Intu Mastic which is a non-public part of this ETA.

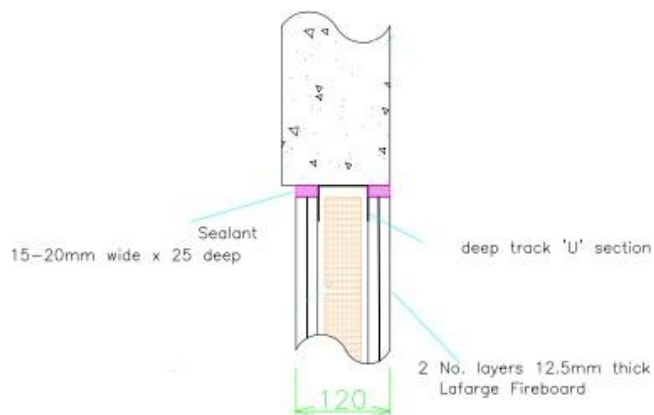
## Annex C

### Resistance to Fire Classification of Astro Intu Mastic

#### C.1 Flexible Wall constructions according to 1.2.1 with wall thickness of minimum 120 mm

##### C1.1 Linear joint or gap seal, horizontally orientated with sealant to the unexposed and exposed faces

Construction details: Astro Intu Mastic installed both sides of the wall



##### C.1.2

#### Astro Intu Mastic Joint Seals. Min 120 mm Thick – Sealing of Drywall Head Track-Sealant Flush To Both Faces Of The Wall

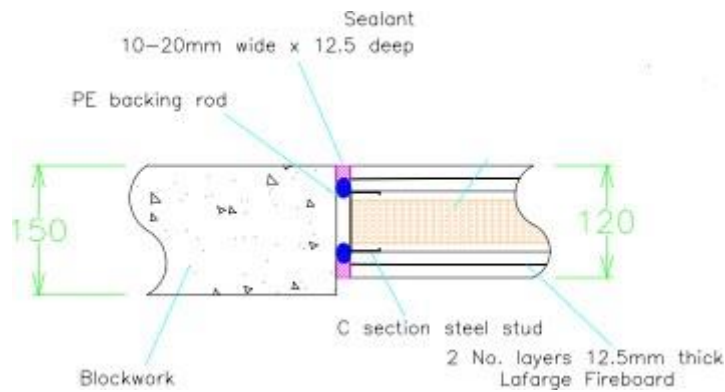
Substrate	Depth (mm)	Classification
Gypsum board/Steel head track	25mm. (Both Sides)	<b>EI120-T – X – F – W 00 to 20</b>
Gypsum board/Steel head track	25mm. (Both Sides)	<b>EI120-V – X – F – W 00 to 20</b>

**C.2 Flexible Wall constructions according to 1.2.1 with wall thickness of minimum 120 mm**

**C.2.1 Linear joint or gap seal, vertically orientated with sealant to the unexposed and exposed face**

Construction details: Astro Intu Mastic installed both sides of the wall

Maximum joint height 3m



**C.2.2**

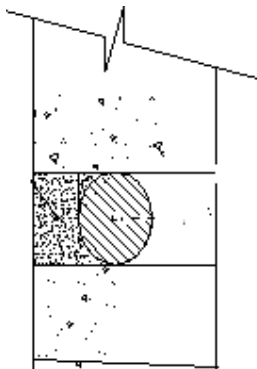
<b>Astro Intu Mastic Linear Joint Seals. Min 120 mm Thick Flexible or Rigid Wall. Sealant Flush To Both Faces Of The Wall</b>		
<b>Depth (mm)</b>	<b>Backing Material</b>	<b>Classification</b>
12.5mm. (Both Sides)	PE backing Rod	<b>EI120-V - X - F - W 00 to 20</b>

### C.3 Rigid Wall constructions according to 1.2.1 with wall thickness of minimum 100 mm

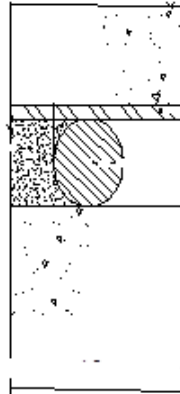
#### C.3.1 Linear joint or gap seal, vertically orientated with sealant to one side of the wall

Construction details: Astro Intu Mastic installed either side of the wall

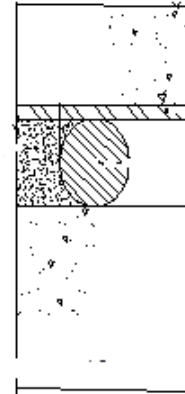
Softwood density:- minimum 410kg/m<sup>3</sup>, fixing centres 300mm



Concrete-Concrete



Concrete to Softwood



Concrete to Steel

#### C.3.2

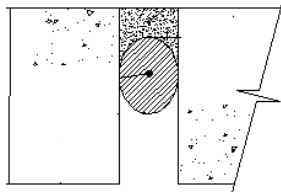
<b>Astro Intu Mastic Linear Joint Seals. Min 100 mm Thick Rigid Wall.</b>			
<b>Substrate</b>	<b>Depth (mm)</b>	<b>Backing Material</b>	<b>Classification</b>
Concrete-Concrete	10 (Single Side)	PE backing Rod	<b>E120 EI45-V – X – F – W 00 to 20</b>
Concrete-Concrete	25 (Single Side)	PE backing Rod	<b>E120 EI60-V – X – F – W 00 to 50</b>
Concrete-Steel	10 (Single Side)	PE backing Rod	<b>E120 EI20-V – X – F – W 00 to 20</b>
Concrete-Steel	50 (Single Side)	PE backing Rod	<b>E45 EI30-V – X – F – W 00 to 50</b>
Concrete-Softwood	10 (Single Side)	PE backing Rod	<b>E30 EI20-V – X – F – W 00 to 20</b>
Concrete-Softwood	50 (Single Side)	PE backing Rod	<b>EI45-V – X – F – W 00 to 50</b>

## C.4 Rigid Floor constructions according to 1.2.1 with floor thickness of minimum 150 mm

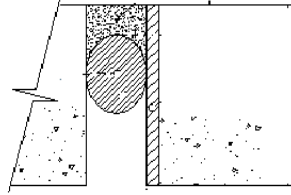
### C.4.1 Linear joint or gap seal, horizontally orientated with sealant to one side of the floor

Construction details: Astro Intu Mastic installed to the upper face of the floor

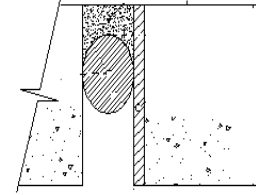
Softwood density:- minimum 410kg/m<sup>3</sup>, fixing centres 300mm



Concrete-Concrete



Concrete to Steel



Concrete to Softwood

### C.4.2

<b>Astro Intu Mastic Linear Joint Seals. Min 150 mm Thick Rigid Floor.</b>			
<b>Substrate</b>	<b>Depth (mm)</b>	<b>Backing Material</b>	<b>Classification</b>
Concrete-Concrete	10 (Single Side)	PE backing Rod	<b>E240 EI45-H - X - F - W 00 to 20</b>
Concrete-Concrete	25 (Single Side)	PE backing Rod	<b>E240 EI90-H - X - F - W 00 to 50</b>
Concrete-Steel	10 (Single Side)	PE backing Rod	<b>E120 EI20-H - X - F - W 00 to 20</b>
Concrete-Steel	50 (Single Side)	PE backing Rod	<b>E240 EI90-H - X - F - W 00 to 50</b>
Concrete-Softwood	10 (Single Side)	PE backing Rod	<b>EI30-H - X - F - W 00 to 20</b>
Concrete-Softwood	50 (Single Side)	PE backing Rod	<b>EI45-H - X - F - W 00 to 50</b>