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## CERTIFICATE OF APPROVAL

### No CF 640

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This is to certify that, in accordance with  
TS00 General Requirements for Certification of Fire Protection Products  
The undermentioned products of

## ASTROFLAME (FIRESEALS) LTD

Unit 8 The IO Centre, Stephenson Road, Segensworth, Fareham,  
Hampshire PO15 5RU

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Have been assessed against the requirements of the Technical Schedule(s)  
denoted below and are approved for use subject to the conditions  
appended hereto:

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#### CERTIFIED PRODUCT

Astro Intu Mastic  
(Intumescent Fire & Acoustic  
Mastic)

#### TECHNICAL SCHEDULE

TS03 Fire Resisting  
Penetration Seal Systems

TS40 Linear Gap Sealing  
Systems

Signed and sealed for and on behalf of Warringtonfire Testing and Certification Limited

Paul Duggan  
Certification Manager

Issued: 18<sup>th</sup> August 2008  
Revised: 24<sup>th</sup> October 2020  
Valid to: 2<sup>nd</sup> May 2022





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## CERTIFICATE No CF 640

### ASTROFLAME (FIRESEALS) LTD

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#### Astro Intu Mastic (Intumescent Fire & Acoustic Mastic)

1. This approval relates to the use of Astro Intu Mastic for the fire protection of movement joints within walls and floors. The detailed scope is given in the Approval Matrix included in this Certificate. This shows the thickness and acceptable services for Astro Intu Mastic Sealant .required to provide fire resistance periods in accordance with BS 476: Part 20: 1987, EN1366-3: 2009 and EN1366-4: 2006 of up to 240 minutes for wall/floor constructions. The scope of certification complies with the guidelines stated in the ASFP Red Book: 3<sup>rd</sup> Edition for 3<sup>rd</sup> party certification schemes.
2. This certification is provided to the client for their own purposes and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.
3. The product is approved on the basis of:
  - i) Initial type testing
  - ii) Audit testing at the frequency specified in TS03, TS40
  - iii) A design appraisal against TS03, TS40
  - iv) Inspection and surveillance of factory production control
4. The concrete walls shall be at least 150mm thick and the floors at least 230mm thick and have at least the same fire rating as that required for the penetration seal.
5. Masonry and concrete gap faces will be within the density range of 450 to 2300kg/m<sup>3</sup>, and gap faces will be free from loose or flaking material.
6. Backing or support materials may be polyurethane or polyurethane foam, mineral or ceramic fibre insulation.
7. The approval relates to ongoing production. Product and/or its immediate packaging is identified with the manufacturers' name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

Further information regarding the details contained in this data sheet may be obtained from Astroflame Fireseals Ltd on 01329 844500.

Further information regarding the CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777).

## CERTIFICATE No CF 640 ASTROFLAME (FIRESEALS) LTD

### ASTRO INTU MASTIC BS 476 Approval Matrix

Wall and Floor Installations:- Double Sided Seals						
Product Name		ASTRO INTU MASTIC				
Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	
Wall Constructions (min 250mm thick)	Autoclaved aerated concrete/autoclaved aerated concrete	20	10	Polyethylene 30 mm diameter	300	300
	Autoclaved aerated concrete/autoclaved aerated concrete	30	15	Polyethylene 40 mm diameter	300	210
	Autoclaved aerated concrete/autoclaved aerated concrete	40	20	Polyethylene 50 mm diameter	300	210
	Autoclaved aerated concrete/autoclaved aerated concrete	50	25	Polyethylene 60 mm diameter	300	210
	Brick/Autoclaved aerated concrete	15	10	Polyethylene 20 mm diameter	240	0
	Brick/autoclaved aerated concrete	25	10	Polyethylene 30 mm diameter	240	30
	Steel/ aerated blockwork	30	15	Polyethylene 40 mm diameter	300	90
	Steel/ aerated blockwork	50	25	Ethafoam 50 mm diameter	60	30
	Hardwood/ aerated blockwork	50	25	Ethafoam 50 mm diameter	60	60
	Softwood/ aerated blockwork	25	12	Ethafoam 30 mm diameter	30	30
Floor Constructions (min 250mm thick)	Aerated concrete/ aerated concrete	20	10	Polyethylene 30 mm diameter	300	120
	Aerated concrete/ aerated concrete	30	15	Polyethylene 40 mm diameter	300	60
	Aerated concrete/ aerated concrete	40	20	Polyethylene 50 mm diameter	300	60
	Aerated concrete/ aerated concrete	50	25	Polyethylene 60 mm diameter	300	210
	Softwood/ aerated concrete	25	12	Ethafoam 30 mm diameter	30	30
	Hardwood/ aerated concrete	50	25	Ethafoam 50 mm diameter	30	30
	Steel/ aerated concrete	50	25	Ethafoam 50 mm diameter	60	60
<b>Application Technique</b>	For good adhesion the surfaces of the building element shall be free of any dust or grease and may need to be primed. On good clean, virgin concrete & masonry, no priming required.					





**CERTIFICATE No CF 640**  
**ASTROFLAME (FIRESEALS) LTD**

**ASTRO INTU MASTIC**  
**BS 476 Approval Matrix**

Floor Installations:- Single Sided Seals						
Product Name		ASTRO INTU MASTIC				
Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Floor Constructions (min 150mm thick)	Autoclaved aerated concrete/autoclaved aerated concrete	50	25	Polyethylene 50 mm diameter	240	90
	Autoclaved aerated concrete/autoclaved aerated concrete	40	20	Polyethylene 40 mm diameter	240	45
	Autoclaved aerated concrete/autoclaved aerated concrete	30	15	Polyethylene 30 mm diameter	240	45
	Autoclaved aerated concrete/autoclaved aerated concrete	20	10	Polyethylene 40 mm diameter	240	45
	Autoclaved aerated concrete/softwood	50	25	Polyethylene 50 mm diameter	45	45
	Autoclaved aerated concrete/softwood	40	20	Polyethylene 40 mm diameter	30	30
	Autoclaved aerated concrete/softwood	30	15	Polyethylene 30 mm diameter	30	30
	Autoclaved aerated concrete/softwood	20	10	Polyethylene 20 mm diameter	30	30
	Autoclaved aerated concrete/steel	50	25	Polyethylene 50 mm diameter	240	90
	Autoclaved aerated concrete/steel	40	20	Polyethylene 40 mm diameter	240	30
	Autoclaved aerated concrete/steel	30	15	Polyethylene 30 mm diameter	240	30
	Autoclaved aerated concrete/steel	20	10	Polyethylene 20 mm diameter	240	30
	<b>Application Technique</b>	For good adhesion the surfaces of the building element shall be free of any dust or grease and may need to be primed. On good clean, virgin concrete & masonry, no priming required.				



**CERTIFICATE No CF 640**  
**ASTROFLAME (FIRESEALS) LTD**

**ASTRO INTU MASTIC**  
**EN1366-4 Approval Matrix**

Wall Installations:- Single Sided Seals- Sealant installed to either side of wall						
Product Name		ASTRO INTU MASTIC				
Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Wall Constructions (min 100mm thick)	Autoclaved aerated concrete/autoclaved aerated concrete	50	25	Polyethylene 50 mm diameter	120	60
	Autoclaved aerated concrete/autoclaved aerated concrete	20	10	Polyethylene 20 mm diameter	120	45
	Autoclaved aerated concrete/softwood	50	50	Polyethylene 50 mm diameter	45	45
	Autoclaved aerated concrete/softwood	20	10	Polyethylene 20 mm diameter	30	20
	Autoclaved aerated concrete/steel	50	50	Polyethylene 50 mm diameter	45	30
	Autoclaved aerated concrete/steel	20	10	Polyethylene 20 mm diameter	120	20
<b>Application Technique</b>		For good adhesion the surfaces of the building element shall be free of any dust or grease and may need to be primed. On good clean, virgin concrete & masonry, no priming required.				

## CERTIFICATE No CF 640 ASTROFLAME (FIRESEALS) LTD

### ASTRO INTU MASTIC EN1366-4 Approval Matrix

Wall Installations:- Single Sided Seals						
Product Name		ASTRO INTU MASTIC				
Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Wall Constructions (min 100mm thick)	Autoclaved aerated concrete/autoclaved aerated concrete	50	25	Polyethylene 50 mm diameter	120	60
	Autoclaved aerated concrete/autoclaved aerated concrete	40	20	Polyethylene 40 mm diameter	120	30
	Autoclaved aerated concrete/autoclaved aerated concrete	30	15	Polyethylene 30 mm diameter	120	30
	Autoclaved aerated concrete/autoclaved aerated concrete	20	10	Polyethylene 40 mm diameter	120	30
	Autoclaved aerated concrete/softwood	50	25	Polyethylene 50 mm diameter	45	30
	Autoclaved aerated concrete/softwood	40	20	Polyethylene 40 mm diameter	30	15
	Autoclaved aerated concrete/softwood	30	15	Polyethylene 30 mm diameter	30	15
	Autoclaved aerated concrete/softwood	20	10	Polyethylene 20 mm diameter	30	15
	Autoclaved aerated concrete/steel	50	25	Polyethylene 50 mm diameter	45	30
	Autoclaved aerated concrete/steel	40	20	Polyethylene 40 mm diameter	45	30
	Autoclaved aerated concrete/steel	30	15	Polyethylene 30 mm diameter	45	30
	Autoclaved aerated concrete/steel	20	10	Polyethylene 20 mm diameter	120	15
	<b>Application Technique</b>	For good adhesion the surfaces of the building element shall be free of any dust or grease and may need to be primed. On good clean, virgin concrete & masonry, no priming required.				





**CERTIFICATE No CF 640**  
**ASTROFLAME (FIRESEALS) LTD**

**ASTRO INTU MASTIC**  
**EN 1366-4 Approval Matrix**

Floor Installations: Single Sided Seals – Seal installed flush with upper face of the floor						
Product Name		ASTRO INTU MASTIC				
Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Floor Constructions (min 150mm thick)	Autoclaved aerated concrete/autoclaved aerated concrete	50	25	Polyethylene 50 mm diameter	240	90
	Autoclaved aerated concrete/autoclaved aerated concrete	20	10	Polyethylene 20 mm diameter	240	45
	Autoclaved aerated concrete/softwood	50	50	Polyethylene 50 mm diameter	45	45
	Autoclaved aerated concrete/softwood	20	10	Polyethylene 20 mm diameter	30	30
	Autoclaved aerated concrete/steel	50	50	Polyethylene 50 mm diameter	240	90
	Autoclaved aerated concrete/steel	20	10	Polyethylene 20 mm diameter	120	120
<b>Application Technique</b>		For good adhesion the surfaces of the building element shall be free of any dust or grease and may need to be primed. On good clean, virgin concrete & masonry, no priming required.				



## CERTIFICATE No CF 640 ASTROFLAME (FIRESEALS) LTD

### ASTRO INTU MASTIC EN1366-4 Approval Matrix

Wall Installations: Double Sided Seals						
Product Name		ASTRO INTU MASTIC				
Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	
Wall Constructions (min 120mm thick)	Drywall/ autoclaved aerated concrete	20	12.5 (both faces)	Polyethylene 20 mm diameter	120	120
Wall Constructions (min 100mm thick)	Autoclaved aerated concrete/autoclaved aerated concrete	20	12.5 (both faces)	Polyethylene 20 mm diameter	120	120
<b>Application Technique</b>		For good adhesion the surfaces of the building element shall be free of any dust or grease and may need to be primed. On good clean, virgin concrete & masonry, no priming required.				

Sealing of Drywall Head & Flexible Wall To Rigid Wall – Double Sided Seals						
Product Name		ASTRO INTU MASTIC				
Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Seal Orientation	Integrity (mins)	Insulation (mins)	
Wall Constructions (min 120mm thick)	Gypsum plasterboard + steel head track/Rigid floor	20	25 (both faces)	Horizontal	120	120
	Gypsum plasterboard + steel vertical edged track/Rigid floor	20	25 (both faces)	Vertical	120	120
<b>Application Technique</b>		For good adhesion the surfaces of the building element shall be free of any dust or grease and may need to be primed. On good clean surfaces no priming required.				

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Issued: 18<sup>th</sup> August 2008  
Revised: 24<sup>th</sup> October 2020  
Valid to: 2<sup>nd</sup> May 2022





**CERTIFICATE No CF 640**  
**ASTROFLAME (FIRESEALS) LTD**

**ASTRO INTU MASTIC**  
**EN1366-4 +A1 Approval Matrix**

Product Name		ASTRO INTU MASTIC					
Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	Movement %	
Wall Constructions (min 150mm thick)	autoclaved aerated concrete	60 *	20 (both faces)	Polyethylene 20 mm & 50 mm diameter	240	120	25 Shear 8.3 Lateral
		60*	5 (either face)	75mm deep, compressed 15%, stonewool 60kg/m3	240	60	25 Shear 12.5 Lateral
*Pre movement							
<b>Application Technique</b>	For good adhesion the surfaces of the building element shall be free of any dust or grease and may need to be primed. On good clean, virgin concrete & masonry, no priming required.						



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**ASTROFLAME (FIRESEALS) LTD**

**ASTRO INTU MASTIC**  
**EN1366-4 +A1 Approval Matrix**

Product Name		ASTRO INTU MASTIC					
Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	Movement %
Floor Constructions (min 150mm thick)	autoclaved aerated concrete	60 *	20 (both faces)	Polyethylene 20 mm & 50 mm diameter	180	60	16.6 Lateral
		60*	5 (upper face)	100mm deep, compressed 15%, stonewool 60kg/m3	240	240	25 Lateral
*Pre movement							
<b>Application Technique</b>		For good adhesion the surfaces of the building element shall be free of any dust or grease and may need to be primed. On good clean, virgin concrete & masonry, no priming required.					

## CERTIFICATE No CF 640 ASTROFLAME (FIRESEALS) LTD

### ASTRO INTU MASTIC EN1366-3 Approval Matrix

Wall Installations: Double Sided Seals							
Product Name			ASTRO INTU MASTIC				
Pipe Size and Type	Annular Seal Width (mm)	Minimum Seal Depth (mm)	Backing Material	End Configuration	Integrity (mins)	Insulation (mins)	
Flexible or Rigid Wall Constructions (min 150mm thick)	Copper/Steel pipe 15mm dia. & 0.8 – 7.4mm wall thickness	10	25 (both faces)	N/A	C/U	120	20
	Copper/Steel pipe 40mm dia. & 0.8 – 14.2mm wall thickness	10	25 (both faces)	N/A	C/U	120	15
	Copper/Steel pipe 40 – 159mm dia. & 1.8 – 14.2mm wall thickness	10	25 (both faces)	N/A	C/U	120	0
	Copper/Steel pipe 40mm dia. & 0.8 – 14.2mm wall thickness with Thermal Defense Wrap 300mm long to the unexposed face.	10	25 (both faces)	N/A	C/U	120	90
	Copper/Steel pipe 40 - 159mm dia. & 1.8 – 14.2mm wall thickness with Thermal Defense Wrap 300mm long to the unexposed face.	10	25 (both faces)	N/A	C/U	120	20
<b>Application Technique</b>		The hole to be cut to suit the required annular space and the service shall then be positioned centrally within the hole. The annular space shall then be filled to the minimum required depth with the sealant and the sealant smoothed to be flush with both faces. On good clean surfaces no priming is required					
<b>Rigid Walls</b>		The wall must have a minimum thickness of 150mm and comprise concrete, aerated concrete or masonry with a minimum density of 450kg/m <sup>3</sup>					
<b>Flexible Walls</b>		The walls must have a minimum thickness of 120mm and comprise timber or steel studs lined on both faces with a minimum of 2 layers of 12.5mm thick "Type F" Gypsum board according to EN 520. In timber stud walls no part of the penetration shall be closer than 100mm to a stud, the cavity must be closed between the penetration seal and the stud and a minimum of 100mm of insulation of Class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration and the stud.					





## CERTIFICATE No CF 640 ASTROFLAME (FIRESEALS) LTD

### ASTRO INTU MASTIC EN1366-3 Approval Matrix

Wall Installations: Double Sided Seals						
Product Name		ASTRO INTU MASTIC				
Cable and Cable Tray Size	Cut Out (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	
Flexible or Rigid Wall Constructions (min 150mm thick)	Cables ≤ to 21mm Types A1 ,A2, A3, B	490mm long x 100mm high	25 (both faces)	70mm x 80kg/m <sup>3</sup> stone wool	120	90
	Perforated Cable Tray 450mm x 50mm	490mm long x 100mm high	25 (both faces)	70mm x 80kg/m <sup>3</sup> stone wool	120	90
	Cables > 21-50mm Types C1, C2	200mm long x 100mm high	25 (both faces)	N/A	90	60
<b>Application Technique</b>		The hole to be cut to suit the required service and the service shall then be positioned centrally within the hole. The space shall then be filled to the minimum required depth with the sealant and the sealant smoothed to be flush with both faces. On good clean surfaces no priming is required.				
<b>Rigid Walls</b>		The wall must have a minimum thickness of 150mm and comprise concrete, aerated concrete or masonry with a minimum density of 450kg/m <sup>3</sup>				
<b>Flexible Walls</b>		The walls must have a minimum thickness of 120mm and comprise timber or steel studs lined on both faces with a minimum of 2 layers of 12.5mm thick "Type F" Gypsum board according to EN 520. In timber stud walls no part of the penetration shall be closer than 100mm to a stud, the cavity must be closed between the penetration seal and the stud and a minimum of 100mm of insulation of Class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration and the stud.				



**CERTIFICATE No CF 640**  
**ASTROFLAME (FIRESEALS) LTD**

**ASTRO INTU MASTIC - Approval Matrix**

<b>Air Permeability:</b> EN1026	Pressure (Pa)	Positive pressure (m <sup>3</sup> /h/m <sup>2</sup> )	Negative pressure (m <sup>3</sup> /h/m <sup>2</sup> )	<b>Weather Capability:</b>	Not evaluated by this approval
	50	0	0		
	100	0	0		
<b>Acoustic Rating:</b> BS EN ISO 10140-3:1995	<b>R<sub>w</sub>(C;C<sub>tr</sub>) :38(-2;-7) dB</b>			<b>Movement Capability:</b>	Movement parameters provided in the scope above
<b>Smoke Toxicity</b> BS 6853: 1999 Annex B.1 Incorporating Amendment No.1	<b>R value of 0.19</b>			<b>Smoke Density</b> BS 6853 D.3: 1999 Incorporating Amendment No.1	<b>Ao (max) value 0.004</b>