



1121

Astroflame Fireseals Ltd  
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Segensworth, Fareham  
Hampshire, PO15 5RU

14

1121-CPR-JA5014

ETA-14/0048  
ETAG 026-Part 1  
ETAG 026-Part 3  
ASTRO FLEXI COAT SEAL

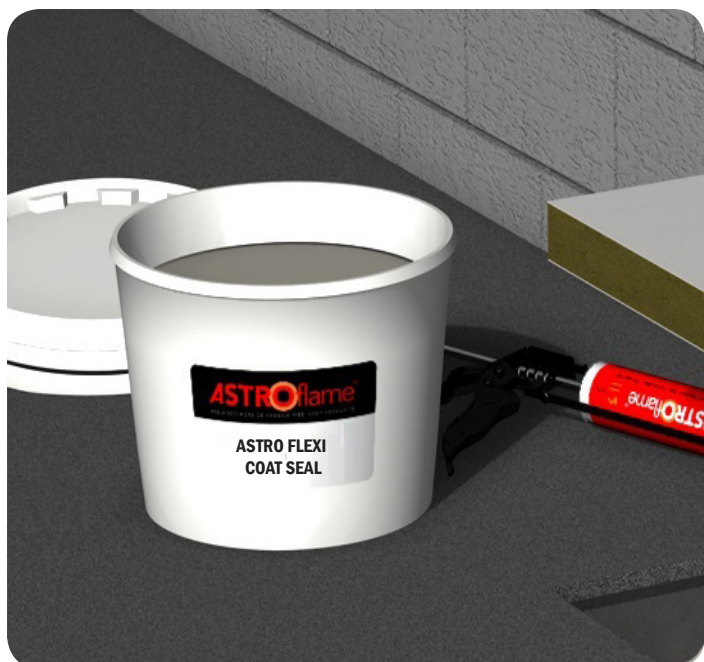
"see ETA-14/0048 for  
relevant characteristics"



APPROVED  
CF640

EN 13501-2  
EN 1366-4:2006  
EN 1026:2000  
EN 10140-2:2010

EN 1366-3:2009  
EN 1027  
BS476 part 20&22  
LEED 2009  
EQ C 4.1



Issue: 1  
July 2014

## Technical Data Sheet

### Astro Flexi Coat®

### UIC of product-type: FLEXCS

# ASTRO FLEXI-COATING®

ETA 14-0048  
CE-1121-CPR-JA5014



Unique identification code of product-type: FLEXCS

## Technical Description of the Product

Astro Flexi Coat Seal Sealant is an acrylic based sealant used to form linear gap seals where gaps are present in floor constructions.

The Astro Flexi Coat Seal Sealant is supplied in liquid form contained within 310ml & 380ml cartridges, 600ml foils or in 5, 10, 20, 25kg pails or 250kg drums. The sealant is gunned, trowelled or sprayed into the aperture in or between the separating elements/elements to a specified depth utilising stone wool backing material

Astro Flexi Coat Seal Sealant is applied 1mm DFT / 2.5mm WFT, on to the unexposed surface of 100mm thick, 80kg/m<sup>3</sup> Stone Wool. The Stone Wool is manufactured in accordance with EN 13162: 2001

Internal use - ETAG 026-3 (used as European Assessment Document EAD) Type Z<sub>1</sub>

## Intended Use

The intended use of system Astro Flexi Coat Seal Sealant is to reinstate the fire resistance performance of gaps in and joints in rigid floor constructions

## Rigid Floors

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

The supporting construction must be classified in accordance with EN 12501-2 for the required fire resistance period

The system Astro Flexi Coat Seal Sealant may be used to provide a linear joint or gap seal with specific supporting constructions and substrates

The maximum permitted joint/gap width for system Astro Flexi Coat Seal Sealant is 200mm

The maximum movement capability of system Astro Flexi Coat Seal Sealant is ≤ 25%

The provisions made in this European Technical Assessment are based on an assumed working life of the Astro Flexi Coat Seal Sealant 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, 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



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### 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

### Reaction to Fire

Astro Flexi Coat Seal Sealant is classified 'F' in accordance with EN 13501-1

### Resistance to Fire

System Astro Flexi Coat Seal Sealant 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 Flexi Coat Seal Sealant has been classified in accordance with EN 13501-2:

The seals may only be used in the elements of construction described in above and against the substrates

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

### Air Permeability

System Astro Flexi Coat Seal Sealant has been tested in accordance with BS EN 1314-1 to provide the following results:

Product tested			Flexi - Coat (1 side)	
	Results under positive chamber pressure		Results under negative chamber pressure	
Pressure (Pa)	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	0.1	0.1	1.0	1.4
100	0.3	0.4	1.1	1.5
150	0.6	0.8	1.5	2.1
200	0.8	1.1	0.9	1.3
250	1.1	1.5	1.3	1.8
300	1.2	1.7	1.7	2.4
450	2.4	3.3	3.5	4.9
600	4.5	6.3	5.3	7.4

### Dangerous Substances

Astroflame Fireseals Limited presented a declaration that Astro Flexi Coat Seal does not contain any substance of high concern with regards to REACH regulation 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 labelling of dangerous substances) are stated in the Astro Flexi Coat Seal Sealant 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



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**ASTRO**  
**FLEXI-COATING®**

 ETA 14-0048  
 CE-1121-CPR-JA5014


Unique identification code of product-type: FLEXCS

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

Rigid floor constructions floor thickness of minimum 150mm

Linear joint or gap seal, horizontally orientated with sealant to the unexposed face

Astroflame Fireseals Limited 'Astro Flexi Coat Seal' Linear Joint Seals in Rigid Floors 150mm thick (min)				
Depth Sealant	Backing	Substrates	Seal Orientation	Classification
1mm	Stonewool 100mm thick (80kg/m <sup>3</sup> )	AAC - AAC	Unexposed face	EI 120 - H - X - F - W 00 - 200


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Specimen	Integrity (minutes)	Insulation (minutes)
300mm ladder	65	65
C1	65	65
B	65	65
D3	65	65
Ladder	65	65
500mm non-perforated tray with 10mm Annular Gap		
A1	65	65
A2	65	65
A3	65	65
B	65	65
C1	65	65
C2	65	65
C3	65	65
Tray	65	65
42mm Copper Pipe & Armaflex	65	65
42mm Copper Pipe	65	19
	75	75
On the batt on the standard configuration	75	75
On the batt on the non-standard configuration	65	65
	65	65

Unique identification code of product-type: FLEXCS

Specimen	Integrity (minutes)	Insulation (minutes)
<b>300mm ladder</b>		
D1	75	68
D2	75	75
E	75	53
Ladder	75	58
<b>200mm ladder</b>		
D3	75	64
Ladder	75	75
<b>500mm perforated tray</b>		
A1	75	75
A2	75	66
A3	75	75
B	75	75
C1	75	75
C2	75	75
C3	75	75
Ladder	75	71
<b>500mm non-perforated tray</b>		
F	75	75
G1	75	32
G2	75	40
I	75	41
H	75	33
<b>300mm ladder</b>		
D1	65	62
D2	65	65
E	65	57
Ladder	65	64
<b>200mm ladder</b>		
D3	65	53
E	65	47
Ladder	65	56
<b>500mm ladder</b>		
A1	65	65
A2	65	62
A3	65	65
B	65	65
C1	65	65
C2	65	65
C2	65	65
C3	65	65


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Specimen	Integrity (minutes)	Insulation (minutes)
Tray	65	65
159mm Copper Pipe & Armaflex	65	38
159mm Copper Pipe	65	10
500mm non-perforated tray		
F	65	65
G1	65	31
G2	65	41
I	65	65
H	65	65
Tray	65	48
500mm non-perforated tray		
A1	65	65
A2	65	64
A3	65	65
G2	65	62
Tray	65	59
40mm Upvc Pipe & Annular gap	65	65
200mm Upvc Pipe & Annular gap	65	65
500mm non-perforated tray		
A1	65	65
A2	65	65
A3	65	65
B	65	65
C1	65	56
C2	65	65
C3	65	65
Tray	65	65

## Blank Seal

Specimen	(minutes)			Insulation (minutes)
B	132	132	132	132

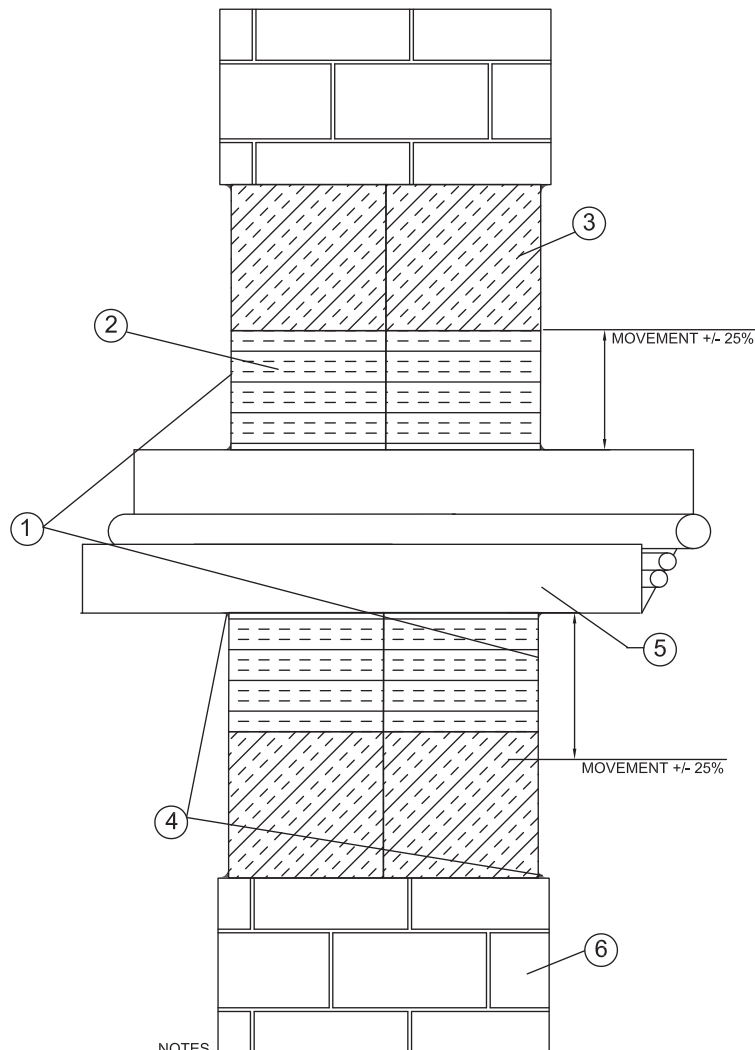
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**TYPICAL VERTICAL SECTION SHOWING THE USE OF ASTRO FLEXI COATING WITHIN A ASTRO BATT WITH A CABLE TRAY SYSTEM TO ALLOW MOVEMENT**



- NOTES
- 1 - ASTRO FLEXI COATING
  - 2 - 60kg DENSITY STONE WOOL
  - 3 - ASTRO BATT
  - 4 - ASTRO INTU MASTIC
  - 5 - CABLE TRAY
  - 6 - RIGID WALL CONSTRUCTION



Astroflame (Fireseals) Ltd  
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Segensworth  
Fareham, PO15 5RU

FILE NAME:

DET 38-0001

DATE:

21/01/14

ASTROFLAME has provided this specification on the basis of data, information & site conditions given to ASTROFLAME by the client, the respective ASTROFLAME product information & the existing level of technical knowledge. This specification relates to the expected performance of the proposed detail, were it to be subjected to the standardised test against which the judgement was made. The accuracy of this specification can only be guaranteed provided:

1. Only original ASTROFLAME products as defined within this specification are used
2. These specific products are used & installed only by a competent, experienced installer & by strictly obeying the conditions & calculations mentioned in this specification, as well as all relevant technical instructions, operating manuals, setting manuals, installation manuals & all other ASTROFLAME data sheets.
3. The proposed performance, listed prerequisites & criteria conform with actual existing site conditions & have been checked & agreed by the installer & client.



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**Flexi - Coat and Flexi - Board Slab Edge Linear Gap Seal**

This approval relates to the use of Flexi - Coat and Flexi - Board Slab Edge linear joint sealing systems for the fire protection of joints between the end of floor slabs & walls. The detailed scope is given in the Approval Matrix included in this Certificate. This shows the thickness, width and support for Flexi - Coat and Flexi - Board Slab Edge linear joint sealing systems required to provide fire resistance periods in accordance with BS EN 1366-4: 2006 of up to 120 minutes. The scope of certification complies with the guidelines stated in the ASFP Red Book: 3rd Edition for 3rd party certification schemes

This certification is designed to demonstrate compliance of the product or system specifically with Approved Document B (England and Wales), Section 2 of the Technical Standards (Scotland), Technical Booklet E (N. Ireland). If compliance is required to other regulatory or guidance documents there may be additional considerations or conflict to be taken into account

The product is approved on the basis of

- i Initial type testing
- ii Audit testing at the frequency specified in TS03
- iii A design appraisal against TS03
- iv Inspection and surveillance of factory production control

The concrete floors shall be at least 150mm thick and have at least the same fire rating as that required for the joint seal

Block/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 flanking material

The approval relates to on-going production. Product and/or its immediate packaging is identified with the manufactures' name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate



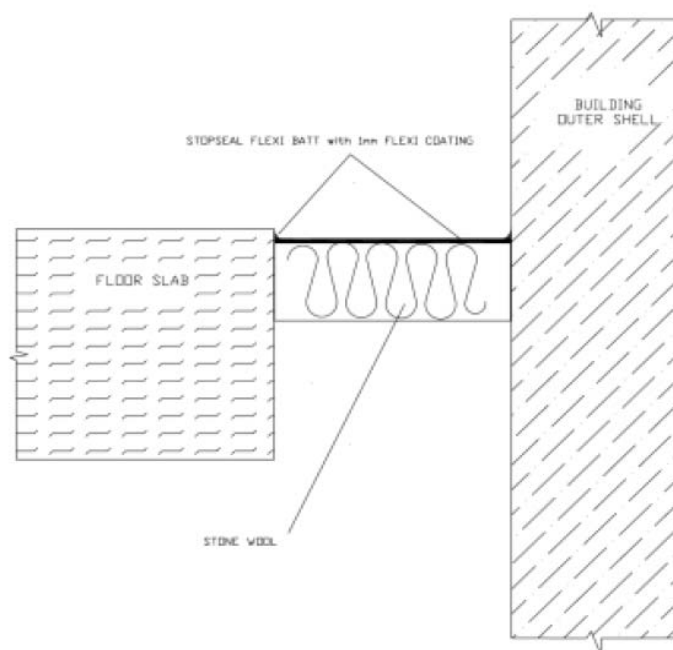
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Unique identification code of product-type: FLEXCS

Installations between min. 150mm concrete floor slab edge and concrete/masonry wall			
Product Name	Flexi-coat and Flexi-board Slab Edge Linear Gap Seal		
Density	80 - 160kg/m <sup>3</sup>		
Maximum Gap Width mm	Minimum Seal Depth mm	Integrity (mm)	Insulation (mins)
200	100	120	120

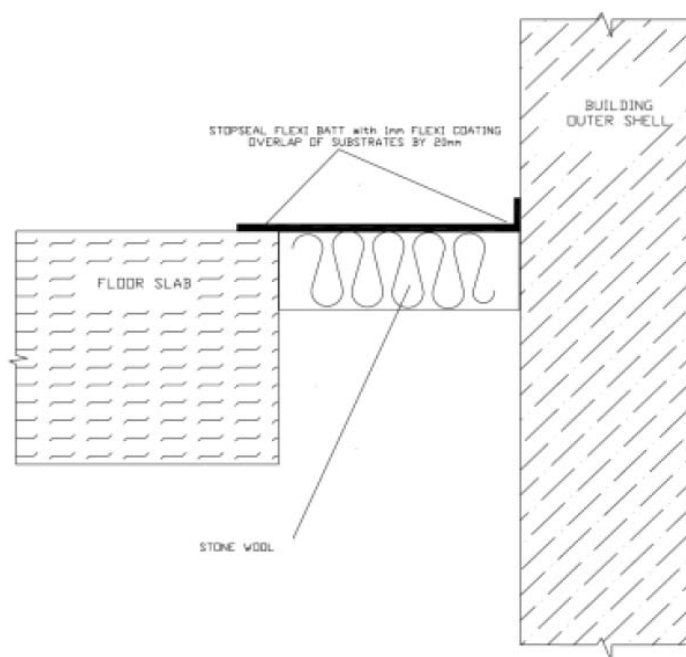


### Application Technique

Compression fir 'Flexi-board' stone wool board into the opening, just below the surface, then apply minimum 1mm depth of Flexi Coat Seal to the top surface via spray, brush or trowel.

Unique identification code of product-type: FLEXCS

Installations between min. 150mm concrete floor slab edge and concrete/masonry wall			
Product Name	Flexi-coat and Flexi-board Slab Edge Linear Gap Seal		
Density	80 - 160kg/m <sup>3</sup>		
Maximum Gap Width mm	Minimum Seal Depth mm	Integrity (mm)	Insulation (mins)
200	100	120	120

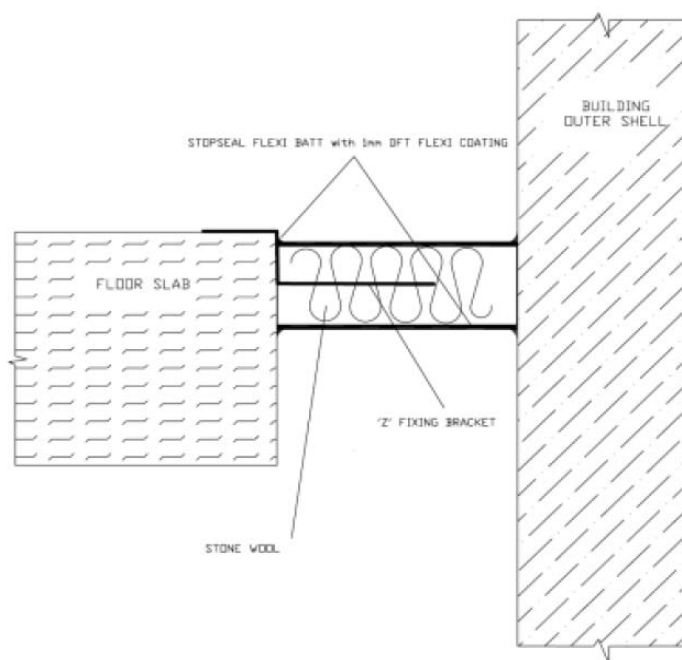


### Application Technique

Compression fir 'Flexi-board' stone wool board into the opening flush with the upper surface the surface, then apply minimum 1mm depth of Flexi Coat Seal to the top surface via spray, brush or trowel overlapping onto the building element by 20mm all round.

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Installations between min. 150mm concrete floor slab edge and concrete/masonry wall			
Product Name	Flexi-coat and Flexi-board Slab Edge Linear Gap Seal		
Density	80 - 160kg/m <sup>3</sup>		
Maximum Gap Width mm	Minimum Seal Depth mm	Integrity (mm)	Insulation (mins)
200	100	120	120



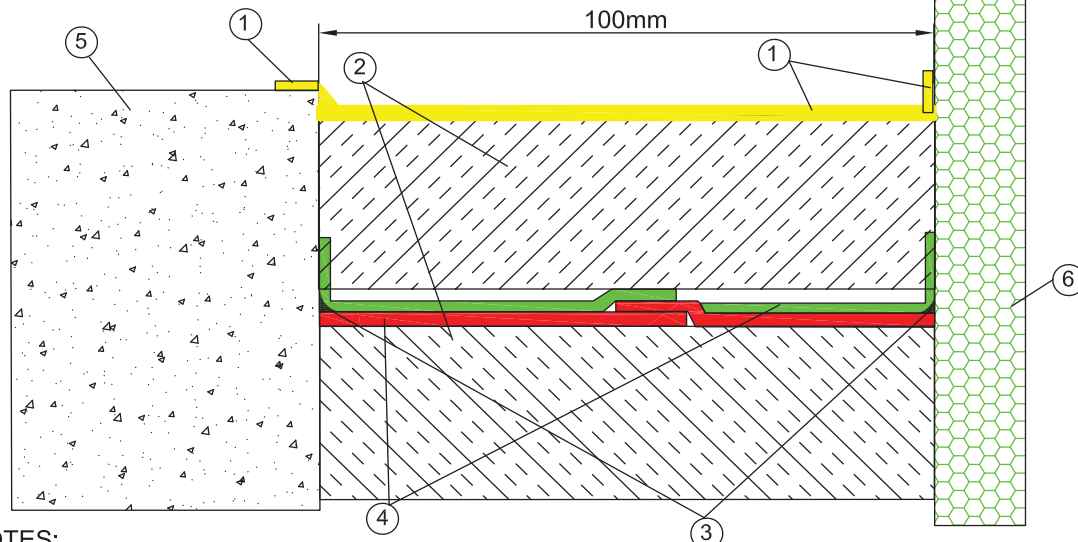
### Application Technique

Insert fixing bracket into 'Flexi-board' at approximately mid-depth, then compression fit 'Flexi-board' stone wool board into the opening, just below the surface, then apply minimum 1mm depth of Flexi Coat Seal to the top and bottom surfaces via spray, brush or trowel.

Air Permeability: 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> )	Weather Capability:	Not evaluated by this approval
	300	0	0		
Acoustic Rating: BS EN ISO 10140-2:2010	Rw(C;Ctr) : 30(-2;-8) dB Dnew (C;Ctr) : 40(-2;-8) dB			Movement Capability:	Not evaluated by this approval

Unique identification code of product-type: FLEXCS

## TYPICAL INSTALLATION FOR ASTRO FLEXI COATING FR EI120 ACOUSTIC 53Rw

**NOTES:**

- 1 - ASTRO FLEXI COATING 2.5mm WFT - 2.8kg/m<sup>22</sup> - 80kg DENSITY 2 x 100mm DEEP STONE WOOL COMPRESSED 20%
- 3 - ASTRO INTU MASTIC
- 4 - SD MEMBRANE x 2 LAYERS 5kg/m<sup>2</sup> - OVER LAPPED TO ENABLE MOVEMENT
- 5 - CONCRETE SUBSTRATE
- 6 - OUTER CLADDING PANEL



FILE NAME:

DET 38-0019

DATE:

31/03/14

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# BM TRADA

## Results of Test: Chilt/P12083/04/AR1

### Astroflame (Fireseals) Limited

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 Segensworth, Fareham  
 PO15 5RU

This document confirms that performance testing was conducted on 10 November 2012. Testing was conducted the principles of the following standard:-

- BS EN 1026: 2000 Windows and doors - Air permeability - Test method.

The following results were achieved

Product tested			Astro Flexicoat (1 side)	
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	0.1	0.1	1.0	1.4
100	0.3	0.4	1.1	1.5
150	0.6	0.8	1.5	2.1
200	0.8	1.1	0.9	1.3
250	1.1	1.5	1.3	1.8
300	1.2	1.7	1.7	2.4
450	2.4	3.3	3.5	4.9
600	4.5	6.3	5.3	7.4

The results relate only to the specimen tested, as detailed in the technical specification Chilt/P12083/tec4/AR1



Paul Andrews – Head of Section



Vincent Kerrigan - Technical Manager  
Date: 31 October 2013

#### BM TRADA

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Page 3 of 5

Unique identification code of product-type: FLEXCS

Technical specification document

No: Chilt/P12083/tec4

Test For: Astroflame Ltd Unit 8, The I O Centre Stephenson Road Segensworth, Fareham Hampshire, PO15 5RU

Performance testing to the principles of BS EN 1026: 2000 Windows and doors - Air permeability - Test Method Was conducted on your panel on 11 September 2012. The technical specification is detailed below. The specimen was delivered to Chiltern Dynamics laboratory on 10 September 2012

#### Description of Construction

The specimen was identified as Flex-coating (1 side). The overall panel dimensions were 600mm wide x 1200mm high x 50mm deep and mounted within a softwood subframe for installation into the test rig

Door leaf

	Material/type	Dimensions (mm)	Density (kg/m <sup>3</sup> )
<b>Coating</b>	Flexi Coat Seal one face of stone wool panel	1 thick dry thickness	-
<b>Panel</b>	Stone wool	50	60kg

As stated by client, not checked by laboratory



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