



Certificate of approval

Certificate number AC103.1

This is to certify that Siderise Insulation Ltd has carried out the certification of Siderise 'CW-FS' linear joint seal in accordance with the Certifire scheme rules document – ATS00 – for the certification of passive fire protection products in Australia. The product has been assessed against the requirements of Technical Schedule ATS21 and is approved for use subject to the conditions outlined in this document.

Siderise Insulation Ltd

Forge Industrial Estate, Maesteg, Bridgebd, CF34 0AZ

Certified product	Technical schedule	Approved standard
Siderise 'CW-FS' linear joint seal <ul style="list-style-type: none">• CW-FS60-X (XFS 120)• CW-FS120 (XFS 120)• CW-FS60 (XFS 90)• CW-CB30 (XFS 75) See Table 3 and Table 4 for scope of applicability	ATS21	AS 1530.4:2014 AS 4072.1:2005

Signed on behalf of Warringtonfire Certification – Australia

Chad McLean
Certification manager - Australia



Issue date 4 October 2022
Re-issued date 15 February 2023
Certificate valid to 4 October 2027

This certificate is the property of Warringtonfire Australia
ABN: 81 050 241 524 Address: 409-411 Hammond Rd, Dandenong VIC 3175 Australia

1. Introduction

This certificate of approval relates to the use of Siderise 'CW-FS' linear joint seal products for the fire protection of linear joint gaps. The products have been assessed against the requirements of Technical Schedule ATS21 and is approved for use as a fire resisting linear gap seal product. The resulting scope of certification has been deemed to satisfy the requirements of AS 1530.4:2014 when used in the following applications:

Installation application of the seal

- Between concrete to concrete/masonry substrates in both vertical and horizontal orientation
- Between masonry to masonry/concrete substrates in both vertical and horizontal orientation

The detailed scope is given in the tables in the approval matrix in section 2 of this certificate. These show the approved range of products and limitations.

The product is approved based on satisfying the requirements in Table 1 and the factory production control (FPC) audit carried out for each location where the product is manufactured for the Australian market. The audit report for each location has been prepared and is retained in a confidential file by Warringtonfire Certification Australia. General details are provided in Table 2.

This approval relates to the ongoing production of Siderise 'CW-FS' linear joint seal products. The product and/or its immediate packaging is identified with the manufacturer's name, the product name or number, the Certifire name or the Certifire name and mark – together with the Certifire certificate number and application where appropriate. The product is only deemed certified if it carries these details. Further details of product installation can be provided as applicable.

All work and services carried out by Warringtonfire Australia are subject to, and conducted in accordance with our standard terms and conditions. These are available on request or at <https://www.element.com/terms/terms-and-conditions>.

Table 1 Basis of evidence

Evidence	Comments
Evidence of relevant testing provided	See Appendix A
Testing carried out within the last 5 years to validate ongoing quality and performance of the product	Yes
Independent sampling of tested product for traceability	Yes
Batch number confirmed	Yes
The requirements of technical schedule ATS21 met	Yes
The manufacturing facilities accredited to ISO 9001:2015	Yes
Satisfactory inspection and surveillance of factory production control (FPC)	Yes

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Table 2 FPC audit

Item	Detail
Audit company	Warringtonfire, UK
Audit objectives	<p>The objective of the audit is to:</p> <ul style="list-style-type: none"> determine the conformity of the client's management system, or parts of it, with audit criteria determine the ability of the management system to ensure the client meets applicable contractual requirements determine the effectiveness of the management system to ensure the client can reasonably expect to achieve their specified objectives determine adequate process control of product manufacturing as applicable, identify areas for potential improvement in the management system.
Date of inspection	2 March 2022
Outcome	The audit satisfied the requirements of the Certifire scheme.

2. Formal scope of certification

General product description

XFS120, XFS90 and XFS75 consist of stone wool insulation with aluminium foil facing used as linear gap seals in concrete walls and floors. The seals are formed in 1200 mm long sections and are provided in a range of thicknesses.

A representative image of the product is shown here.



General requirements

The linear joint seals shall not be penetrated by services – eg pipes or cables.

The linear joint seals shall be installed within concrete or masonry substrates of minimum 120 mm thickness and density of $\geq 670 \text{ kg/m}^3$.

The certification is only applicable to straight, linear joint seals, as those defined in AS 1530.4:2014 and does not consider corner detailing.

See Section 3 for further details on installation of product.

Approved products, applications, and fire resistance periods

This certificate approves the products and applications detailed within the following tables, subject to the installation of the products in accordance with the manufacturer's installation instructions.

The approval relates to linear joint gap sealing applications tested or assessed in accordance with AS 1530.4:2014. Only the specific types of constructions defined in the test reports referenced may be considered as relevant to this certification, as shown in Table 3 and Table 4

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Approval matrix

Table 3 Joints in minimum 120 mm thick concrete floors protected with Siderise 'CW-FS' linear joint seals

Product	Seal thickness (mm)	Cover length (mm)	Compression minimum (mm)	Gap width (mm)	Bracket requirement	FRL
CW-FS60-X (XFS 120)	120	1200	Gap width + 20 mm	301-600	B355, 600 mm centres.	-/60/60
CW-FS120 (XFS 120)	120	1200	Gap width + 10 mm	241-300	B355, 600 mm centres	-/120/120
				151-241	B195, 600 mm centres	-/120/120
				51-150	B65/110, 600 mm centres	-/120/120
			10%	20-50	NA	-/120/120
CW-FS60 (XFS 90)	90	1200	Gap width + 10 mm	241-300	B355, 600 mm centres	-/90/60
				151-240	B195, 600 mm centres	-/90/60
				51-150	B65/110	-/90/60
			10%	20-50	NA	-/90/60
CW-CB30 (XFS 75)	75	1200	Gap width + 10 mm	241-300	B355, 600 mm centres	-/60/30
				151-240	B195, 600 mm centres	-/60/30
				51-150	B65/110, 600 mm centres	-/60/30
			10%	20-50	NA	-/60/30

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Table 4 Joints in minimum 120 mm thick concrete walls protected with Siderise 'CW-FS' linear joint seals

Product	Seal thickness (mm)	Cover length (mm)	Compression minimum (mm)	Gap width (mm)	Bracket requirement	FRL
CW-FS60-X (XFS 90)	120	1200	Gap width + 20 mm	451-600	B355, 600 mm centres	-/60/60
CW-FS120 (XFS 120)	120	1200	Gap width + 10 mm	301-450	B355, 450 mm centres	-/120/120
				241-300	B355, 450 mm centres	-/120/120
				151-240	B195, 600 mm centres	-/120/120
				51-150	B65/110, 600 mm centres	-/120/120
			10%	20-50	NA	-/120/120
CW-FS60 (XFS 90)	90	1200	Gap width + 10 mm	241-450	B355, 600 mm centres	-/90/60
				151-240	B195, 600 mm centres	-/90/60
				51-150	B65/110	-/90/60
			10%	20-50	NA	-/90/60
CW-CB30 (XFS 75)	75	1200	Gap width + 10 mm	301-450	B355, 600 mm centres	-/90/30
				241-300	B355, 600 mm centres	-/90/30
				151-240	B195, 600 mm centres	-/90/30
				51-150	B65/110, 600 mm centres	-/90/30
			10%	20-50	NA	-/90/30

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Table 5 Schedule of components

Item	Description	
Separating element – Floor and wall		
1.	Item name	Autoclaved aerated concrete (AAC)
	Density	670 kg/m ³
	Thickness	Minimum 120 mm
	Bedding material	Standard sand/cement mortar mix
Linear gap seal		
2.	Item name	XFS120, XFS90 and XFS75 linear gap seals
	Description	Stone wool insulation with aluminium foil facing
	Density	75 kg/m ³
Steel hanger		
3.	Item name	B355, B195, B65/110
	Material	Galvanized steel
	Size	1.5 mm thick x 25 mm wide
	Lengths	B355 – 355 mm, B195 – 295 mm, B65/110
	Installation	Hanger impaled into linear gap seal at mid-thickness and fixed to separating element with a 6 mm diameter x 70 mm steel anchor.
Damp proof membrane		
4.	Item name	Damp proof membrane
	Material	Polyurethane membrane
	Thickness	0.75 mm
	Fixing method	Friction fitted between the seal and separating element
Joint tape		
5.	Manufacturer	Siderise Insulation Limited
	Reference	RFT120/45
	Material	Self-adhesive backed aluminium foil
	Size	0.1 mm thick x 120 m wide
	Fixing method	Self-adhered across each of the splice joints in the cavity barriers at the unexposed face.

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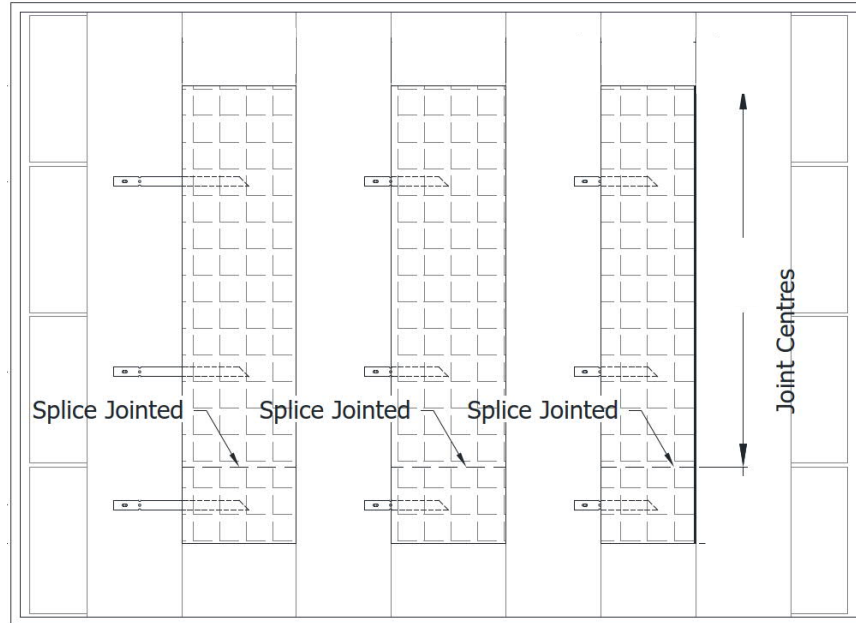


Figure 1 General plan view of the tested systems as provided by the report sponsor.

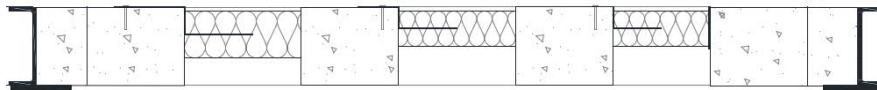


Figure 2 General section view of the tested systems as provided by the report sponsor.

3. Linear gap seal installation details

Installation and fixing

The products are supplied either pre-cut or in sheet form to allow site cutting. Care shall be taken to ensure that the required over sizing of the linear joint seals is accounted for to achieve the specified compression given in the tables. The compression requirements must be strictly observed.

Unless otherwise indicated, the seal shall be correctly supported by steel brackets supplied by the manufacturer in compliance with the required bracket type and frequency detailed in the tables.

Further details of bracket installation outlined below.

- The bracket centres shall be such that they are installed to a maximum of 300 mm from each end of the 1200 mm section.
- The brackets may be bent to suit the specific substrate thickness.
- Brackets shall be pushed into the seal such that it is impaled at mid thickness, with one leg extending to nominally 75% of the gap width.
- The steel angle brackets should be fixed with suitable fire rated fixings which are a minimum of 7 mm in diameter and 50 mm in length.
- A minimum of two brackets are required for each section of linear joint seal and short lengths of seal should be avoided, where possible.
- The seals must be fitted within the thickness of the substrate.

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The certification is only applicable to straight, linear joint seals, as those defined in AS 1530.4:2014 and does not consider corner detailing.

Jointing

The joints between the lengths of seals shall be straight butt joints and Shelby fitted in slot compression so that they are tight. RFT120/45 self-and he sieve reinforced aluminium foil tape shall be applied over the joints.

Gap stability

The gap stability is a fundamental requirement in order to achieve fire compartmentation when utilising these products. It should be noted that the firestops will only function to the specified rating providing the gap stability does not deviate greater than the specified compression tolerances stated in the tables. Appropriate support systems should be designed and installed as required to limit the potential movement at the elevated temperatures of a fire and, should the gap increase beyond these tolerances and or fail completely in the event of a fire, then the fire stop will cease to function.

4. Direct field of application

- The scope of this certificate is limited to an assessment of the variations to the tested systems described in the supporting assessment report CER220006 FAS R1.1.
- This certificate only relates to the actual prototype test specimens, testing conditions and methodology described in the supporting evidence, and does not imply any performance abilities of constructions made with subsequent manufactured products.
- This report details the methods of construction, test conditions and assessed results that are expected if the systems were tested in accordance with AS 1530.4:2014 and assessed in accordance with AS 4072.1:2005.
- This certificate is only valid for the assessed system/s and must not be used for any other purpose. Any changes with respect to size, construction details, loads, stresses, edge or end conditions – other than those identified in this report – may invalidate the findings of this assessment. If there are changes to the system, a reassessment will need to be done by an Accredited Testing Laboratory (ATL).
- The outcomes of this report pertain exclusively to full-width linear gap seals that are installed in a closed state or configuration under compression and do not extend to gap protection with curtain walls.
- The seal must be installed on the nonexposed side with the steel reinforcement bracket remaining unexposed.
- For systems in floors, the considered exposure is from the underside only.
- This certificate is based on the proposed systems being constructed under comprehensive quality control practices and following appropriate industry regulations and Australian Standards on quality of materials, design of structures, guidance on workmanship and the expert handling, placing and finishing of the products on site. These variables are beyond the control and consideration of this report.
- The product outlined in this certificate apply to applications relevant to the requirement for fire resistance only and does not cover any other features of mineral fibre such as durability, thermal conductivity, water absorption etc.

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5. Accreditation

The Certifire product certification scheme operated by Warringtonfire Certification has been endorsed by JAS-ANZ as being suitable for issuing JAS-ANZ accredited certification by conforming to assessment bodies accredited to the scheme by JAS-ANZ. The Certifire scheme is currently in the process of gaining full accreditation under JAS-ANZ.

6. Validity

Warringtonfire Australia does not endorse the tested or assessed product in any way. The conclusions of the results in this certificate may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all conditions.

Due to the nature of fire testing and the consequent difficulty in quantifying the uncertainty of measurement, it is not possible to provide a stated degree of accuracy. The inherent variability in test procedures, materials and methods of construction, and installation may lead to variations in performance between elements of similar construction.

The assessed systems within this certificate are based on information and experience available at the time of preparation. The published procedures for the conduct of tests and the assessment of test results are subject to constant review and improvement. It is therefore recommended that this report be reviewed on, or before, the stated expiry date.

The assessed results represent our opinion about the performance of the proposed system/s expected to be demonstrated on a test carried out in accordance with the requirements of the referenced technical schedule.

This certificate is provided to Siderise Insulation Ltd for their own specific purposes. This report may be used as Evidence of Suitability in accordance the requirements of the relevant National Construction Code. Building certifiers and other third parties must determine the suitability of the systems described in this report for a specific installation.

7. Authority

Applicant undertakings and conditions of use

Siderise Insulation Ltd confirms that:

- To their knowledge the component or element of structure, which is the subject of the assessed results within this certificate, has not been subjected to a fire test to the standard against which assessment of this product is being made.
- They agree to withdraw this certificate from circulation should the component or element of structure be the subject of a fire test by a test authority in accordance with the standard against which the assessed results are being made and the results are not in agreement with this certificate.
- They are not aware of any information that could adversely affect the conclusions of the assessed results in this certificate and if they subsequently become aware of any such information, agree to ask the assessing authority to withdraw the assessment and subsequent product certificate.

General conditions of use

This certificate may only be reproduced in full without modifications by the report sponsor. Copies, extracts or abridgments of this certificate in any form must not be published by other organisations or individuals without the permission of Warringtonfire Australia Pty Ltd.

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Appendix A Overview of test evidence

Table 6 and Table 7 outlines all the fire test and assessment evidence that form the basis of approval for the scope outlined in this certificate.

Table 6 Test evidence

Number	Test report number	Original tested standard
1	WF 348661	BS EN 1366-4:2006 +A1:2010
2	WF 389382	
3	WF 398827	
4	WF 399726	
5	WF 408622	
6	WF 412180	
7	WF 412181	
8	WF 424701	
9	WF 431532	

Table 7 Assessment evidence

Number	Test report number	Assessed standard
1	CER220006 FAS R1.1	AS 1530.4:2014 and AS 4072.1:2005

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