

**THOMAS BELL-WRIGHT  
INTERNATIONAL CONSULTANTS**

In accordance with UKAS accreditation to ISO 17065  
Certification is Hereby Granted

to

*Alstone Manufacturing Private Limited*

*Khasra No. 1393, Langha Road Industrial Area,  
Village Chharba, PO Box 248197, Sahaspur,  
Dehradun, Uttarakhand, India*

for

**“Alstone® FR B”**

**4 mm thick Aluminium Composite Panel Material  
(ASTM D1929-20 and BS EN 13501-1:2018)**

which, subject to limitations described on the following pages and continued  
listing on [www.tbwcert.com](http://www.tbwcert.com), complies with Product Certification Scheme  
*SD03 Exterior Wall Assemblies, Curtain Walls, Building Materials,  
Products & Assemblies*

In witness whereof, this Certificate is issued this 29<sup>th</sup> day of April 2022



*Sandy Dweik*

Sandy Dweik  
Chief Executive Officer

*Nicholas Purcell*

Nicholas Purcell  
Director of Certification

**Certificate Number: TBW0300734**

Initial registration: August 11, 2021  
File Name: VB086\_CRT\_SD03RX\_(f)

Issued: April 29, 2022

Expiration: August 10, 2024  
Issue 2

This certificate and schedules are held in force by regular Factory Inspections by Thomas Bell-Wright International Consultants (TBWIC). Refer to [www.tbwcert.com](http://www.tbwcert.com) or contact TBWIC Certification Division to validate the current status of Certification. This certificate remains the property of Thomas Bell-Wright International Consultants, PO Box 26385, Dubai, UAE. Tel: +971 4 8215777, Email: [certification@bell-wright.com](mailto:certification@bell-wright.com)  
Web: [www.bell-wright.com](http://www.bell-wright.com)

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F 19 Scheme Certificate Issue 7 Issued Feb 2020

# “Alstone® FR B”

## 4 mm thick Aluminium Composite Panel Material

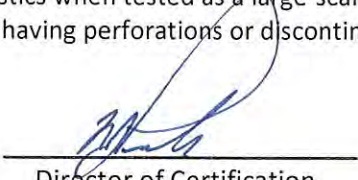
- A. Certification is given for “Alstone® FR B” 4 mm thick Aluminium Composite Material for Reaction to Fire performance for Spontaneous Ignition Temperature (SIT) and Flash Ignition Temperature (FIT) to test standard ASTM D1929-20 and Reaction to Fire classification according to BS EN 13501-1:2018 – “Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire test”, subject to the limitations stated herein. The summary of the scope of this Certification is listed in Table 1 below.

*Table 1. Summary of the scope of certification*

Product Name	Reaction to Fire performance		Report No.
	Result	Standard	
“Alstone® FR B” 4 mm thick Aluminium Composite Panel	B - s1, d0	BS EN 13501-1:2018	VB087-4 Rev.0
	SIT: 446 °C FIT: 432 °C	ASTM D1929-20	VB087-1 Rev.0

- B. Readers of this document should be familiar with Reaction to Fire Testing and the requirements of ISO/IEC 17065:2012. The Certification will be listed on [www.tbwcert.com](http://www.tbwcert.com), while it remains current. This Certification is not valid if it is not listed.
- C. The product is approved on the basis of TBWIC Product Certification Scheme SD03 – Exterior Wall Assemblies, Curtain Walls, Building Materials, Products & Assemblies, which includes pre-test sampling, evidence of performance (under report reference(s) mentioned in Table 1), Technical Verification and Proof of Performance, compliance to Factory Production Control requirements and surveillance & Re-certification Inspection/ Audits.
- D. Limitations:
- D.1. This Certification covers the specifications of the aluminium composite material as tested and described in Section E.
- D.2. The response of the material to heat and flame was measured under controlled conditions in accordance with the requirements of the test standard covered under this Certification. The result(s) described in the respective classification report shall not be used as the sole criteria for fire-hazard or fire-risk assessment of the product, material or system assembly under actual fire conditions.
- D.3. This certification pertains to the material as a standalone product; It does not extend to the overall system or assembly in which the product is installed.
- D.4. This Certification does not address the following:
- Measurement of heat transmission
  - Effect of aggravated flame spread behaviour of an assembly resulting from the proximity of combustible walls and ceilings.
  - Classification or definition of material as non-combustible
  - Any Resistance to Fire rating
  - The toxicity level of smoke developed during combustion
  - Fire propagation characteristics when tested as a large-scale façade cladding assembly
  - Fire performance of panels having perforations or discontinuous surface

Certificate number: TBW0300734

  
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Director of Certification  
Nicholas Purcell

Seal number: 101973

Page 2 of 4  
Issue 2

Issued: 29 Apr. 2022  
Valid to: 10 Aug. 2024

E. Product details

E.1. Product description

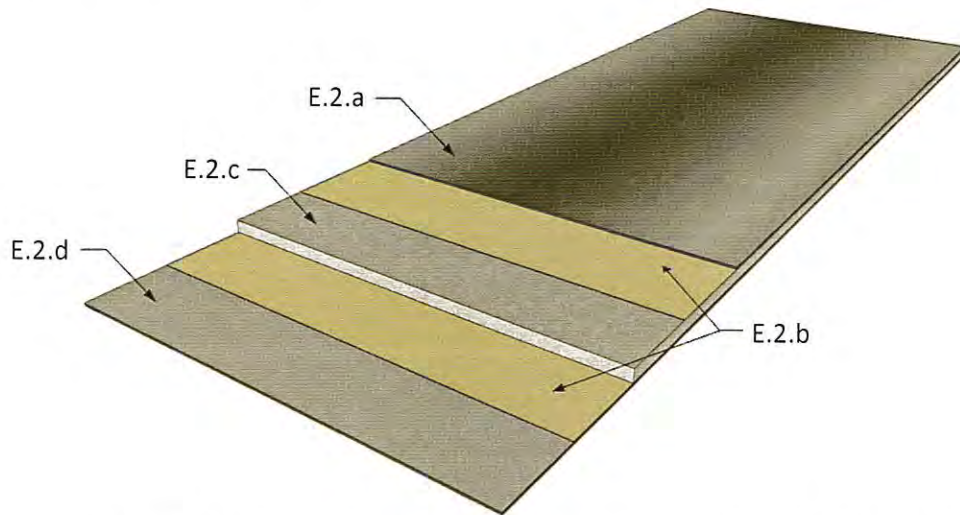
Reference: "Alstone® FR B"

Description: Aluminium composite panel material composed of an inorganic core with mineral fillers

Weight Per Unit Area:  $7.2 \pm 0.5 \text{ kg/m}^2$

Panel thickness:  $4 \pm 0.02 \text{ mm}$


E.2. Product component details



*Figure 1. "Alstone® FR B" Aluminium Composite Panel Material - Typical details*

- a. Exterior Facing (top skin)  
Material: Aluminium Alloy (AA 3003-H16)  
Thickness:  $0.5 \pm 0.028 \text{ mm}$   
Coating Type: Polyvinylidene Fluoride (PVDF)  
Coating Thickness: 28-30 microns
- b. Adhesive  
Description: Polyethylene film  
Nominal Thickness: 50 microns  
Weight Per Unit Area:  $47.5 \text{ g/m}^2 \pm 4\%$
- c. Core  
Reference: "FR13501"  
Material: Inorganic core with mineral fillers  
Density:  $1550\text{-}1650 \text{ kg/m}^3$   
Thickness:  $3 \pm 0.2 \text{ mm}$
- d. Interior Facing (bottom skin)  
Material: Aluminium Alloy (AA 3003-H16)  
Thickness:  $0.5 \pm 0.028 \text{ mm}$   
Coating Type: Polyester (PE)  
Coating Thickness: 5-8 microns

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Page 3 of 4  
Issue 2

Issued: 29 Apr. 2022  
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F. Approved Manufacturing Location

Khasra No. 1393, Langha Road Industrial Area,  
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Certificate number: TBW0300734

Page 4 of 4  
Issue 2



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