

THOMAS BELL-WRIGHT

A PHENNA GROUP COMPANY



In accordance with IAS accreditation to ISO/IEC 17065
Certification is Hereby Granted

to

Modern Industrial Co. Ltd

Sudair Industrial and Business City, Sudair,
Riyadh, Kingdom of Saudi Arabia

for

“Unibond FR-A2”

4 mm thick Aluminium Composite Panel

(BS EN 13501-1:2018, ASTM E84-23d, and ASTM D1929-23)

which, subject to limitations described on the following pages and continued
listing on 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 26th day of December 2025



Sandy Dweik
Chief Executive Officer

Nicholas Purcell
Director of Certification

Certificate Number: TBW0301187

Initial registration: December 26, 2025 Issued: December 26, 2025

Expiration: December 25, 2028

File Name: Y1068_CRT_SD03RX_Issue1_1187_(f)

Issue 1

This certificate and schedules are held in force by regular Factory Inspections by Thomas Bell-Wright International Consultants (TBWIC).
Refer to www.tbwcert.com or contact TBWIC Certification Division to validate the current status of the Certification.

This certificate remains a property of Thomas Bell-Wright International Consultants.

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PF 19 Scheme Certificate Issue 8 Issued Mar 2024

“Unibond FR-A2” 4 mm thick Aluminium Composite Panel

- A. Certification is given for “Unibond FR-A2” 4 mm thick Aluminium Composite Panel for Reaction to Fire performance to test standard ASTM E84-23d – “Standard Test Method for Surface Burning Characteristics of Building Materials” for Flame Spread Index (FSI) and Smoke Developed Index (SDI), ASTM D1929-23 – “Standard Test Method for Determination Ignition Temperature of Plastics” for Spontaneous Ignition (SIT) & Flash Ignition Temperature (FIT), 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 tests”, subject to the limitations stated herein. A summary of the scope of this certification is stated below.

Table 1. Summary of the Scope of Certification

Product Name/Reference	Reaction to Fire performance		Report Reference
	Result	Standard	
“Unibond FR-A2” 4 mm thick Aluminium Composite Panel	A2 - s1, d0	BS EN 13501-1:2018	YI069-10 Rev.0
	SIT: 481 °C FIT: 471 °C	ASTM D1929-23	YI069-2 Rev.0
	Class A ^[1] (FSI: 0, SDI: 10)	ASTM E84-23d	YI069-1 Rev.0
3 mm thick core of “Unibond FR-A2” Aluminium Composite Material	A2 - s1, d0	BS EN 13501-1:2018	YI069-12 Rev.01
	SIT: 505 °C FIT: 415 °C	ASTM D1929-23	YI069-3 Rev.0

^[1] Certification is based on ASTM E84-23d test results and classification is based on the International Building Code 2024, Section 803.1.2 according to the Flame Spread Index (FSI) and Smoke Development Index (SDI) values.

- B. Readers of this document should be familiar with the fire test standard and the requirements of ISO/IEC 17065:2012. The Certification will be listed on www.tbwcert.com while it remains current. This Certification is not valid if it is not so listed.
- C. The product is approved based on TBWIC Product Certification Scheme SD03 Exterior Wall Assemblies, Curtain Walls, Building Materials, Products & Assemblies (Issue 12), which includes pre-test sampling, evidence of performance (under report reference(s) 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 products as tested and described in Section E.

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- D.2. The test standard covered under this Certification was used to measure the response of materials, products, or system assemblies to heat and flame under controlled conditions. The results described in each particular test report on its own shall not be used as the sole criteria for fire-hazard or fire-risk assessment of the materials, products, or system assemblies under actual fire conditions.
- D.3. No variations are allowed in material composition and manufacturing process unless otherwise recognised and approved by this Certification.
- D.4. This Certification pertains only to the product as tested. It does not extend to the construction build-up or assembly comprising the material.
- D.5. This Certification does not address the following:
- a. Air and Water Permeability
 - b. Measurement of heat transmission
 - c. Effect of aggravated flame spread behaviour of an assembly resulting from the proximity of combustible walls and ceilings
 - d. Classification or definition of material as non-combustible
 - e. Any Resistance to Fire rating
 - f. The toxicity level of smoke developed during combustion
 - g. Fire propagation characteristics when tested as large-scale façade cladding assembly
 - h. Fire performance of panels having perforations or discontinuous surface

E. Product Details

E.1. Product description

Reference: "Unibond FR-A2" Aluminium Composite Panel

Description: Aluminium composite material with "flame-retardant grade" core

Weight per unit area: $8.68 \pm 0.32 \text{ kg/m}^2$

Panel thickness: $4 \pm 0.2 \text{ mm}$

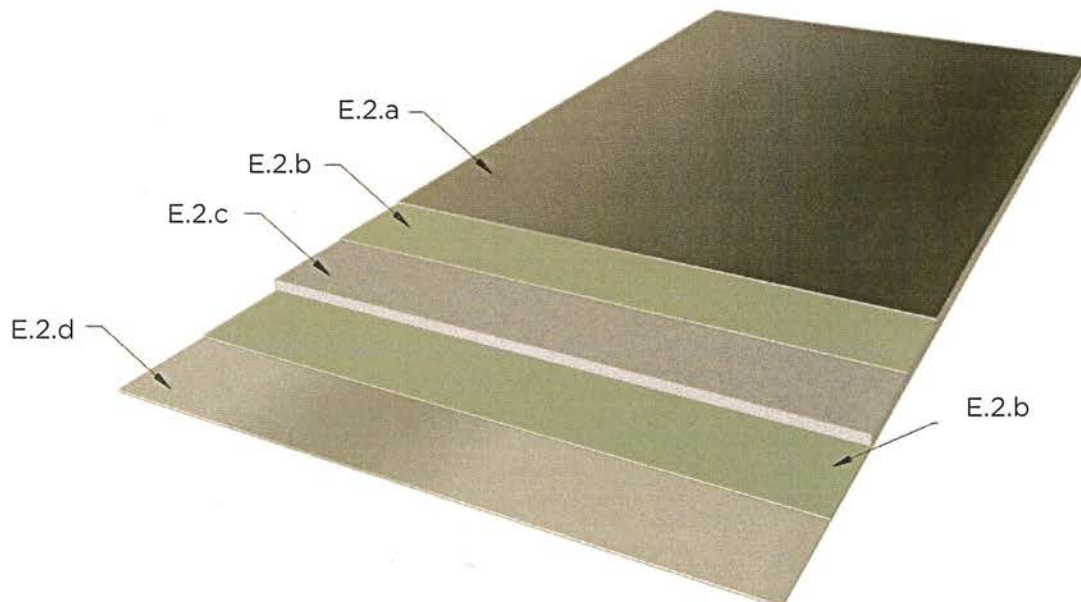


Figure 1. Aluminium Composite Panel - Typical details

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E.2. Product component details

- a. Exterior Skin (top skin)
Material: Aluminium, Alloy 3003-H16
Nominal Thickness: 0.5 mm
Coating Type: Polyvinylidene Fluoride (PVDF)
Coating Thickness: 26 ± 4 microns
Coating Colour: "Bright Silver"
- b. Adhesive Film
Material: Polyethylene-based film
Thickness: 80 ± 5 microns
Nominal Density: 926 kg/m³
- c. Core
Description: Mineral-filled polymer based core
Nominal Thickness: 3 mm
Nominal Density: 1700-1850 kg/m³
- d. Interior Facing (Bottom Skin)
Material: Aluminium, Alloy 3003-H46
Nominal Thickness: 0.5 mm
Coating Type: Polyester (PE)
Maximum Coating Thickness: 12 microns

F. Approved Manufacturing Location

Sudair Industrial and Business City, Sudair,
Riyadh, Kingdom of Saudi Arabia

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