

THOMAS BELL-WRIGHT

A PHENNA GROUP COMPANY



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

to

Alucopanel Middle East LLC

National Industries Park, P.O. Box 416557,
Dubai, United Arab Emirates

for

“Alucopanel® A2”

4 mm thick Aluminium Composite Panel

Non-Loadbearing Ventilated Façade System

Classification Standard: BR 135 Third Edition 2013

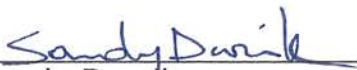
Test Standard: BS 8414-1:2002

(System Designation: A113B10-4)

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 13th day of November 2025





Sandy Dweik
Chief Executive Officer



Nicholas Purcell
Director of Certification

Certificate Number: TBW0300140

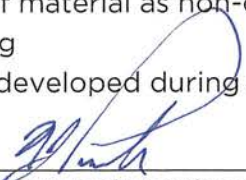
Initial registration: November 26, 2019 Issued: November 13, 2025 Expiration: November 12, 2028
File Name: ZI021_CRT_SD03FP_Issue6_140_(f) Issue 6

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.
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F 19 Scheme Certificate Issue 8 Issued Mar 2024

“Alucopanel® A2”
4 mm thick Aluminium Composite Panel
Non-Loadbearing Ventilated Façade System
(System Designation: A113B10-4)

- A. Certification is given for “Alucopanel® A2” 4 mm thick Aluminium Composite Panel Non-Loadbearing Ventilated Façade System, which has successfully met the requirements for fire propagation characteristics when tested against the requirements of BS 8414-1:2002 “Fire performance of external cladding systems. Test method for non-loadbearing external cladding systems applied to the face of the building” and evaluated according to performance criteria and classification method BR 135 Third Edition 2013 – Annex A “Fire performance of external thermal insulation for walls of multistorey buildings”, subject to the limitations herein.
- 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) P100759-1000 Issue 2 and P100759-1001 Issue 2), 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 fire performance characteristics of a non-loadbearing exterior wall cladding system when tested against the requirements of BS 8414-1:2002 and the performance criteria set in Annex A of BR 135 Third Edition 2013.
- D.2. This Certification covers the non-loadbearing exterior wall cladding system in its entirety. It does not extend to the individual components of the assembly.
- D.3. The design of the non-loadbearing exterior wall cladding assembly covered under this Certification, including the exact specification of the components, the method of fixing and the condition of such components which were subjected to the fire test, shall be duplicated when installed on the site. The design and components of the non-load-bearing exterior wall cladding assembly are not permitted to be substituted, eliminated, or interchanged unless recognised and approved by this Certification.
- D.4. This Certification does not cover the mechanical performance of the non-loadbearing exterior wall cladding assembly during the fire exposure, including (but not limited to) the collapse of the system, detaching of panels, or falling of debris that could cause damage in the vicinity where the system is installed.
- D.5. This Certification does not address the following:
- a. Air and Water Permeability
 - b. Measurement of heat transmission
 - c. Classification or definition of material as non-combustible
 - d. Any Resistance to Fire rating
 - e. The toxicity level of smoke developed during combustion

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- f. Effect of aggravated flame spread behaviour of an assembly resulting from the proximity of combustible materials
- g. Effects of combustible accessories installed or fixed on the surface of exterior cladding material such as laminates, banners, signage, and alike
- h. Effects of radiation from nearby fires
- i. Other characteristics such as durability, weather-resistance, water permeability, physical and mechanical properties etc.

E. System Configuration

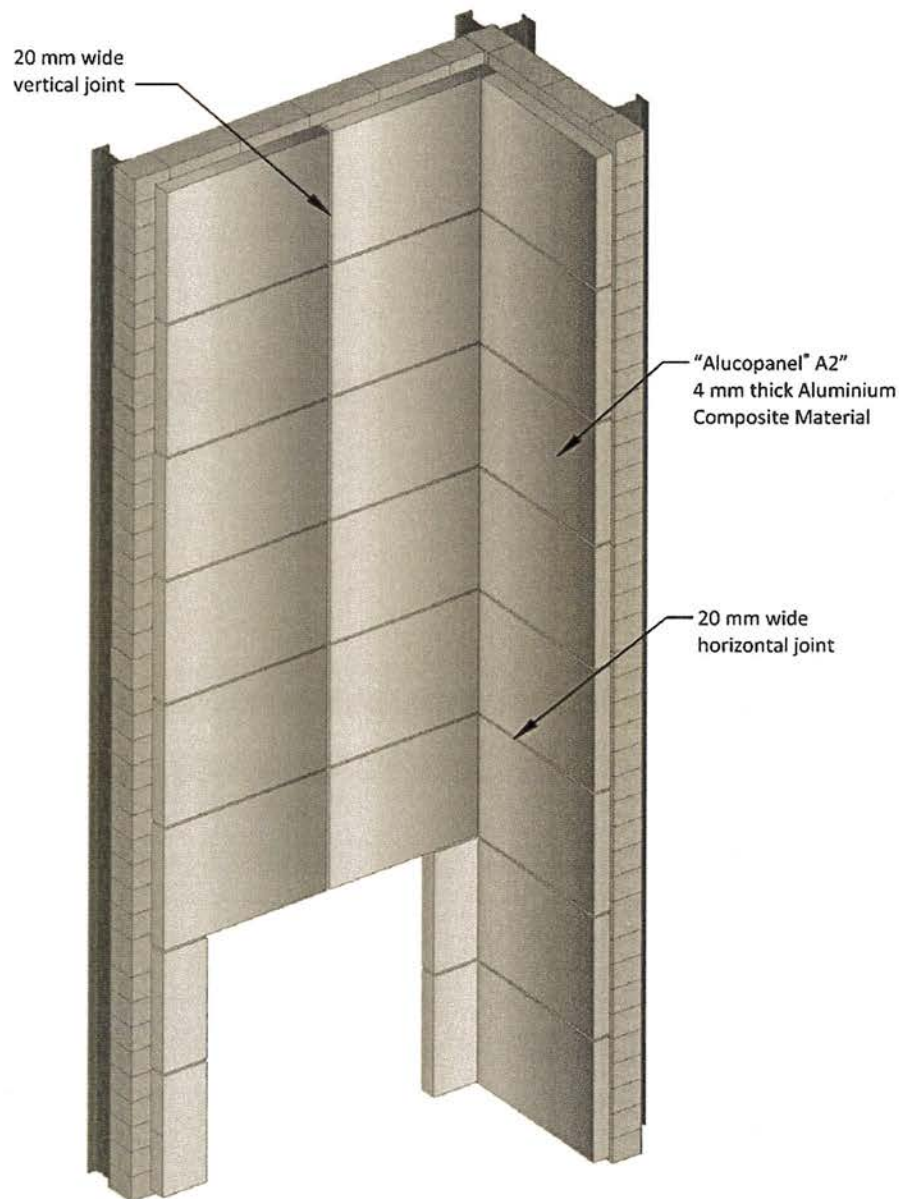


Figure 1. Aluminium Composite Material Exterior Wall Cladding System

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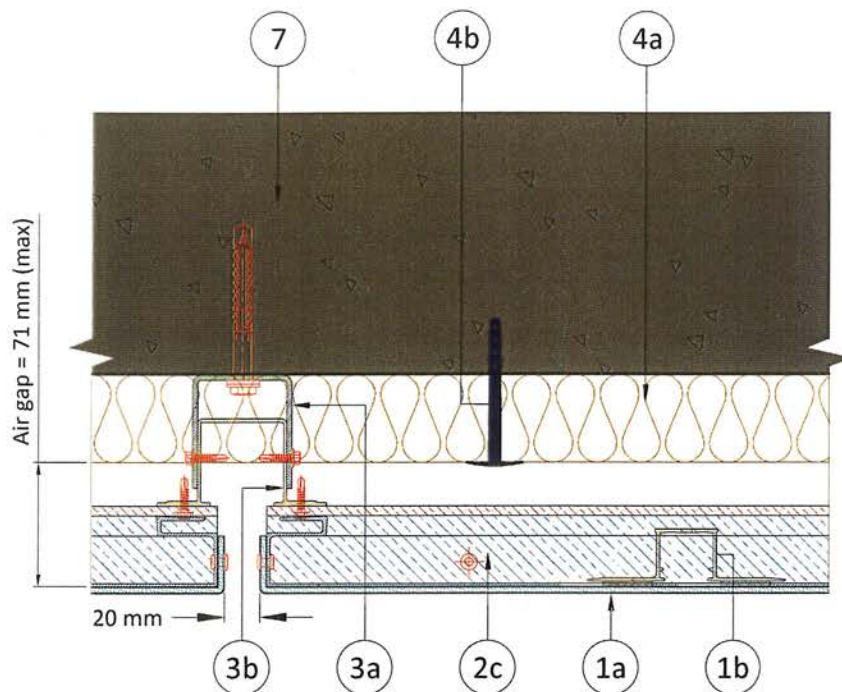


Figure 2. Horizontal section - joint detail

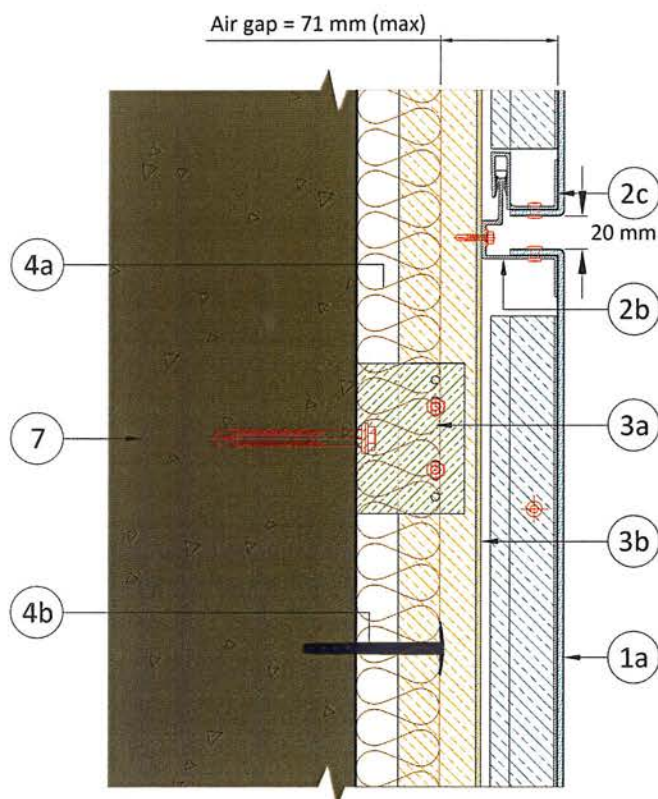


Figure 3. Vertical section - joint detail

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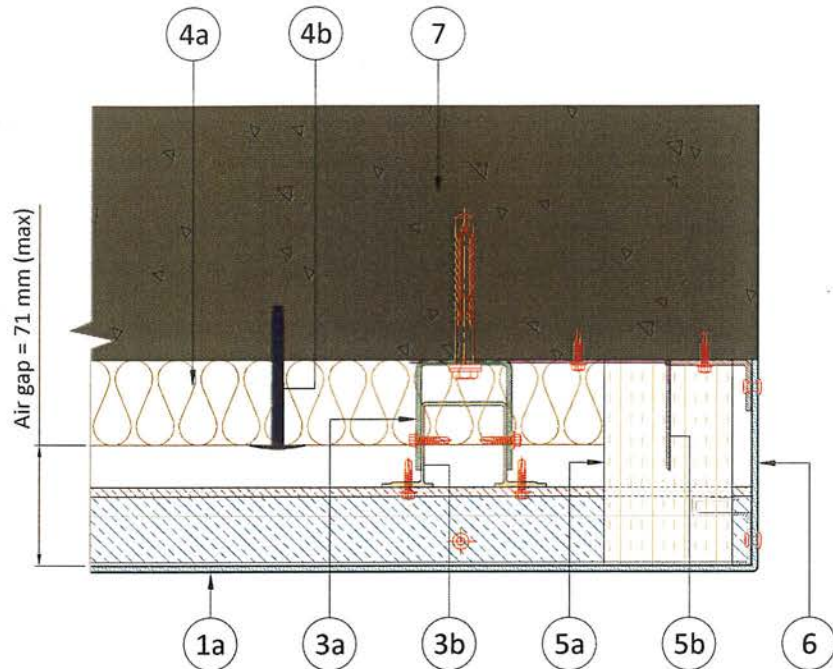


Figure 4. Horizontal section - window detail

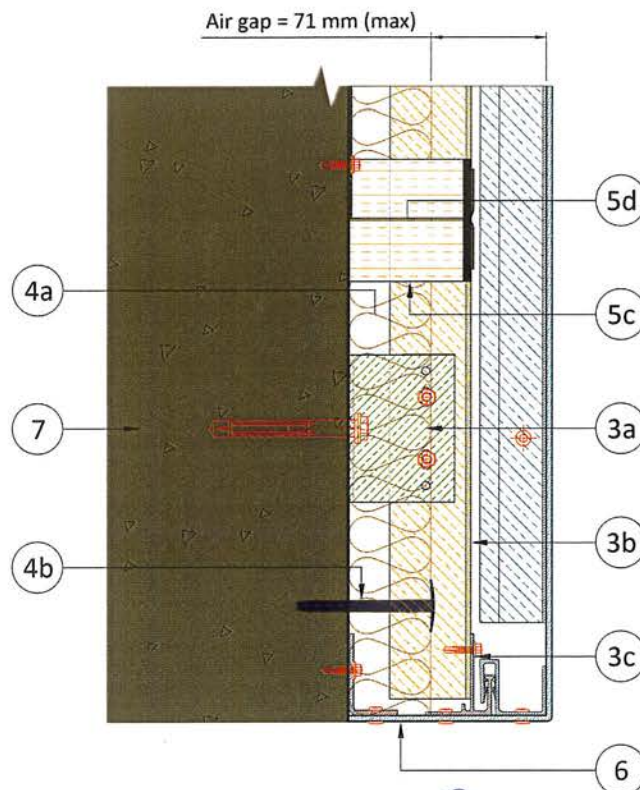
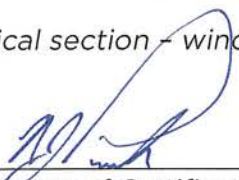


Figure 5. Vertical section - window detail

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1. Cladding Element

1a. Aluminium Composite Panel (ACP)

"Tray profile" Aluminium Composite Panel with 33 mm deep flanges. A maximum gap of 20 mm shall be maintained between the horizontal and vertical joints. The details of the ACP are as follows:

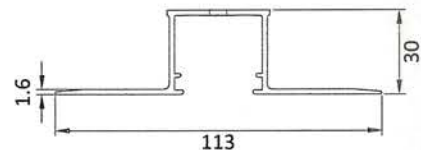
Table 1. Aluminium Composite Panel Details

Reference	"Alucopanel® A2"
Weight Per Unit Area	$8 \pm 0.5 \text{ kg/m}^2$
Panel Thickness	$4 \pm 0.2 \text{ mm}$
Exterior Facing (Top Skin)	Minimum 0.5 mm thick Aluminium Alloy 3105-H16, Polyvinylidene Fluoride (PVDF) coating, 27 microns maximum coating thickness
Interior Facing (Bottom Skin)	Minimum 0.5 mm thick Aluminium Alloy 3105-H16, Polyester (PE) coating, 7 microns maximum coating thickness
Adhesive	Material: "High molecular content polymer adhesive" Thickness: $70 \pm 2 \text{ microns}$ Density: $920 \pm 10 \text{ kg/m}^3$
Core	Description: Mineral-filled inorganic core Thickness: $3 \pm 0.1 \text{ mm}$ Density: $1800 \pm 10 \text{ kg/m}^3$
Maximum Panel Width	1404 mm
Minimum Panel Width	1355 mm
Maximum Panel Height	1050 mm
Minimum Panel Height	970 mm

1b. Panel Stiffeners

Material: Aluminium, Alloy 6063-T6

Application: Fixed vertically onto the back side of the panels at a maximum spacing of 468 mm, using Acrylic-based adhesive (Lord® 400 Series)

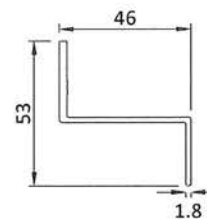


2. Cladding Fixing

2a. Top Fixing

Material: Aluminium, Alloy 6063-T6

Application: Fixed on the top flanges of the top panels using Ø4 × 12 mm stainless steel rivets and fastened against the vertical runners using Ø6.3 × 19 mm stainless steel self-drilling screws



Note: All dimensions in mm

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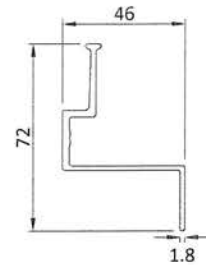
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2b. Intermediate Fixing - Top

Material: Aluminium, Alloy 6063-T6

Reference: "DN3466"

Application: Fixed on the top flanges of the panels at intermediate joint locations using $\varnothing 4 \times 12$ mm stainless steel rivets and fastened against the vertical runners using $\varnothing 6.3 \times 19$ mm stainless steel self-drilling screws



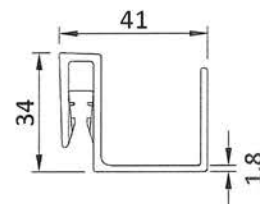
2c. Intermediate Fixing - Bottom and Side

Material: Aluminium, Alloy 6063-T6

Reference: "DN3465"

Application:

- Fixed on the bottom flanges of the panels using $\varnothing 4 \times 12$ mm stainless steel rivets and snap-fitted against the intermediate top fixing and the horizontal runners
- Fixed on the vertical flanges of the panels using $\varnothing 4 \times 12$ mm stainless steel rivets

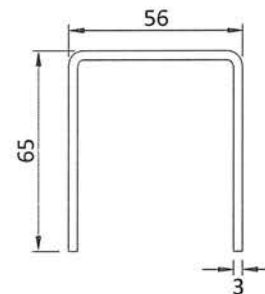


3. Sub-Frame

3a. Wall Brackets

Material: Aluminium, Alloy 6063-T6

Fixing: Fixed against the base wall at a nominal spacing of 846 to 1070 mm vertically and 135 to 712 mm horizontally, using EJOT® Fassadendubel fixings (SDF-KB-10Hx80-E)

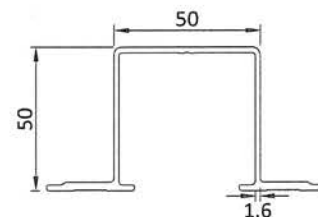


3b. Vertical Runners

Material: Aluminium, Alloy 6063-T6

Reference: "DN3468"

Application: Fixed vertically against the wall brackets using 2 nos. of $\varnothing 4.8 \times 19$ mm stainless steel self-drilling hex head screws

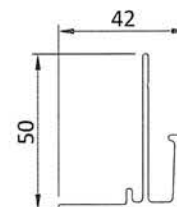


3c. Horizontal Runner

Material: Aluminium, Alloy 6063-T6

Reference: "DN3467"

Application: Fixed horizontally at the aperture and the bottom of the assembly, fastened against the flashing using $\varnothing 4 \times 12$ mm stainless steel rivets



Note: All dimensions in mm

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4. Exterior Insulation

4a. Mineral Wool

A single layer of mineral wool having Aluminium foil facing on one side, shall be fixed to the base wall using metal insulation fasteners. A maximum air gap of 71 mm shall be maintained between the exterior insulation and the rear face of the ACP panel.

Reference: "S2XX"

Manufacturer: Fujairah Rockwool Factory

Nominal Density: 75 kg/m³

Nominal Thickness: 50 mm

Dimension: 600 × 1200 mm (width × length)

4b. Insulation Fastener

Reference: "MBA-08090"

Material: Galvanised Steel

Dimensions: Ø8 × 90 mm

Manufacturer: Rawlplug S.A.

Application: 5 nos. fixed per slab

5. Cavity Fire Barrier

5a. Vertical Cavity Barrier

A full-seal width cavity barrier shall be mechanically secured to the base wall using fixing brackets. The cavity fire barrier shall be installed vertically adjacent to the vertical edges of the aperture and extend over the full height of the wall assembly.

Material: Pre-compressed Stonewool Lamella with an integral foil facing

Dimension: 75 × 130 mm (width × depth)

Nominal Density: 75 kg/m³

Reference: "Siderise RV-90/30"

Manufacturer: Siderise Insulation Ltd., UK

5b. Vertical Cavity Barrier bracket

The brackets shall be bent into an "L" shape with the short leg fixed to the base wall using Ø4 × 55 mm pan head screws and the long leg impaling the cavity barrier. The fixings shall be located at a nominal spacing of 600 mm centres.

Material: Galvanised steel

Dimension: 120 × 1 mm (total length × thickness)

Manufacturer: Siderise Insulation Ltd., UK

5c. Horizontal Cavity Barrier

An open-state cavity barrier shall be mechanically secured to the base wall using fixing brackets. The cavity fire barrier shall be installed horizontally adjacent to every slab edge termination.

Material: Pre-compressed Stonewool Lamella with an integral foil facing

Dimension: 120 × 90 mm (width × depth)

Nominal Density: 75 kg/m³

Reference: "Siderise RH25-120/90"

Manufacturer: Siderise Insulation Ltd., UK

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5d. Horizontal Cavity Barrier bracket

The brackets shall be bent into an "L" shape with the short leg fixed to the base wall using Ø4 x 55 mm pan head screws and the long leg impaling the cavity barrier. The fixings shall be located at a nominal spacing of 600 mm centres.

Material: Galvanised steel

Dimension: 120 x 1 mm (total length x thickness)

Manufacturer: Siderise Insulation Ltd., UK

6. Aperture Flashing

The aperture perimeter shall be covered by extending the flange of the cladding panels. The window flashing shall be fastened to Aluminium angles (Alloy 6063-T6) using Ø4 x 12 mm stainless steel rivets. The angles shall be fixed to the base wall using Ø4 x 55 mm pan head screws.

7. Base Wall with Moisture Barrier

Description: Bituminous waterproof protective coating

Reference: "Nitoproof ® 110/120"

Manufacturer: Al Gurg Fosroc Co. LLC

Application: The base wall shall be made of solid concrete masonry blocks, primed with a layer of Nitoproof 110 bitumen, shall be applied at a coverage rate of 3 m²/litre and allowed to cure for more than 2 hrs after which a layer of Nitoproof 120 bitumen is applied at the coverage rate 3 m²/litre.

F. Approved Manufacturing Location

Sublease Plot # TP010105B,
National Industries Park,
P.O. Box 416557, Dubai,
United Arab Emirates

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