

**THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS**



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

to

Alucopanel Middle East LLC

*National Industries Park, P.O. Box 18022,
Dubai, United Arab Emirates*

for

“Alucopanel® A1”

**4 mm thick Aluminium Composite Material
Exterior Wall Cladding System**

**Test Method: NFPA 285-2019 Edition
(System Designation: A014B61-4)**

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 5th day of October 2023



Sandy Dweik

Sandy Dweik
Chief Executive Officer

Nicholas Purcell

Nicholas Purcell
Director of Certification

Certificate Number: TBW0300672

Initial registration: December 17, 2020

Issued: October 5, 2023

Expiration: October 4, 2026

File Name: XG146_CRT_SD03FP_A1_Issue2_672_(f)

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 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
Web: www.bell-wright.com

This document must not be reproduced, except in its entirety and with the express permission of Thomas Bell-Wright International Consultants
F 19 Scheme Certificate Issue 7 Issued Feb 2020

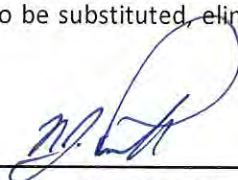
“Alucopanel® A1”
4 mm thick Aluminium Composite Material
Exterior Wall Cladding System
(System Designation: A014B61-4)

- A. Certification is given for the “Alucopanel® A1” 4 mm thick Aluminium Composite Material Exterior Wall Cladding System, which has successfully met the requirements for fire propagation characteristics when evaluated against NFPA 285-2019 Edition – “Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components”, subject to the limitations below.
- 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 on the basis of TBWIC Product Certification Scheme SD03 Exterior Wall Assemblies, Curtain Walls, Building Materials, Products & Assemblies (Issue 11), which includes pre-test sampling, evidence of performance (under report reference(s): UB033 Rev.0), 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 propagation characteristics of exterior wall assembly when evaluated against the NFPA 285-2019 Edition fire test method. The exterior wall assembly has been evaluated for fire propagation characteristics as specified in the following*:
- a. The ability of the wall assembly to resist flame propagation over the exterior face of the wall assembly*;
 - b. The ability of the wall assembly to resist vertical flame propagation within the combustible components from one story to the next*;
 - c. The ability of the wall assembly to resist vertical flame propagation over the interior surface of the wall assembly from one story to the next*;
 - d. The ability of the wall assembly to resist lateral flame propagation from the compartment of fire origin to adjacent compartments or spaces*.
- D.2. This Certification covers the performance of the exterior wall assembly when exposed to fire from an interior room that reaches flashover, breaks exterior windows and exposes the building façade. It is not intended to address the effect of exterior radiation from nearby fires but is relevant to fires that start at the exterior wall assembly*.
- D.3. This Certification covers the exterior wall assembly in its entirety. It does not extend to individual components that comprise the exterior wall assembly (on their own).
- D.4. The actual field installations of the exterior wall cladding system covered under this certification shall not limit the use of the methods and materials employed to seal the gap between the edge of the floor slab and the interior surface of the test specimen during the test, provided approved sealing methods, and materials are used in the field*.
- D.5. The design of the exterior wall assembly covered under this certification, including the exact specification of the components, method of fixing and condition of such component which was subjected to the fire test, shall be duplicated when installed on the site. The design and components of the exterior wall cladding assembly are not permitted to be substituted, eliminated or interchanged unless recognised and approved by this certification.

* NFPA 285-2019 Edition

Certificate Number: TBW0300672

Page 2 of 9
Issue 2



Director of Certification
Nicholas Purcell

Seal number: 101770

Issued: 05 Oct 2023
Valid to: 04 Oct 2026

D.6. The method used to seal the gap in the joints between the panels and the components used was evaluated and certified as part of the exterior wall cladding for fire propagation characteristics only. Physical performance, such as (but not limited to) resistance to weathering, resistance to impact/movement, adhesion, mechanical resistance and stability, or thermal properties, are not considered.

D.7. 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
- 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

E. System Configuration

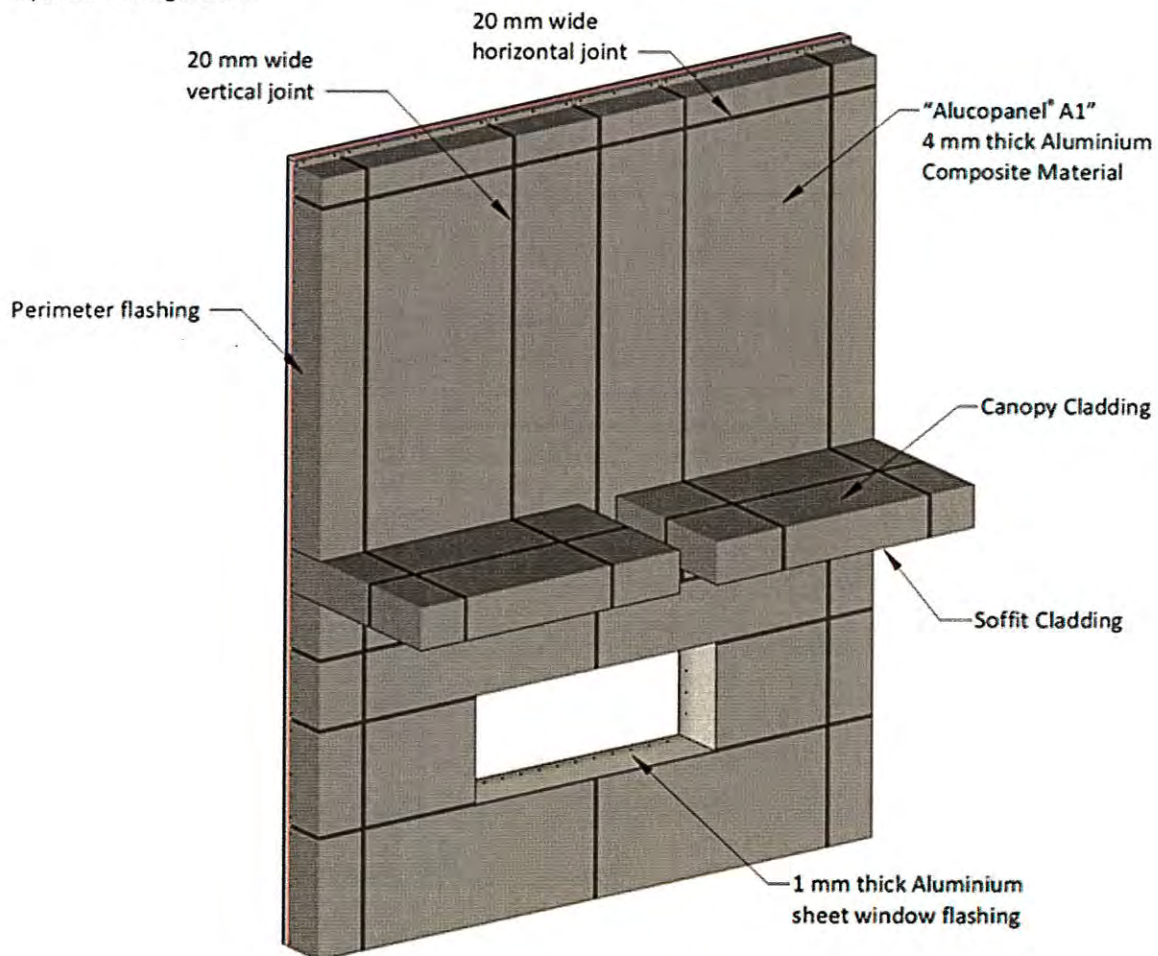
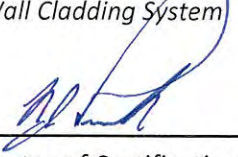


Figure 1. Aluminium Composite Material Exterior Wall Cladding System

Certificate Number: TBW0300672

Page 3 of 9
Issue 2


Director of Certification
Nicholas Purcell

Seal number: 101770

Issued: 05 Oct 2023
Valid to: 04 Oct 2026

This Certificate is the property of Thomas Bell-Wright International Consultants UAE.
Registered office: P.O. Box 26385, Dubai, UAE. F 19 Scheme Certificate Issue 7 Issued: Feb 2020

This document must not be reproduced, except in its entirety and with the express permission of Thomas Bell-Wright International Consultants.

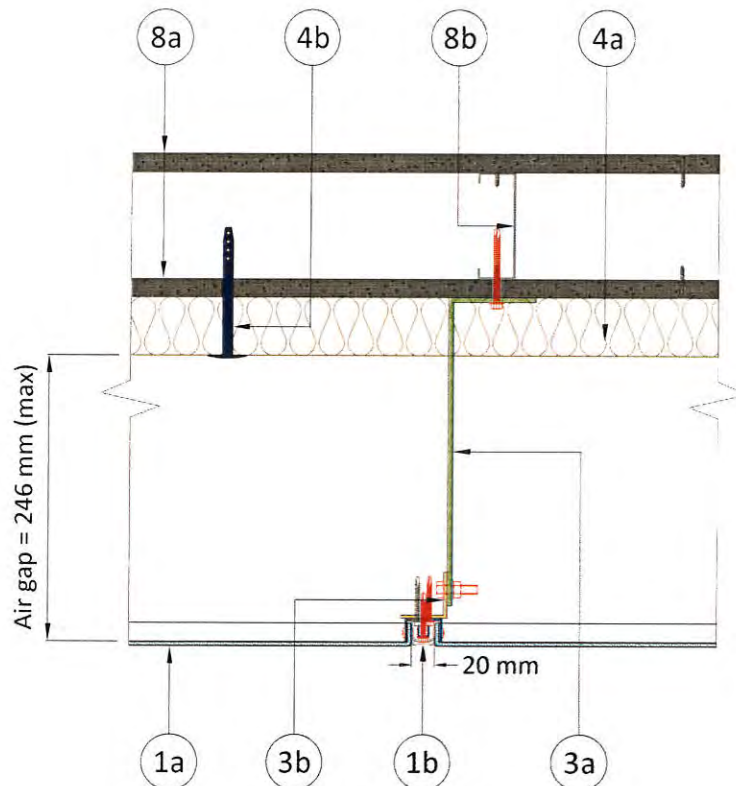


Figure 2. Horizontal Section – Joint Details

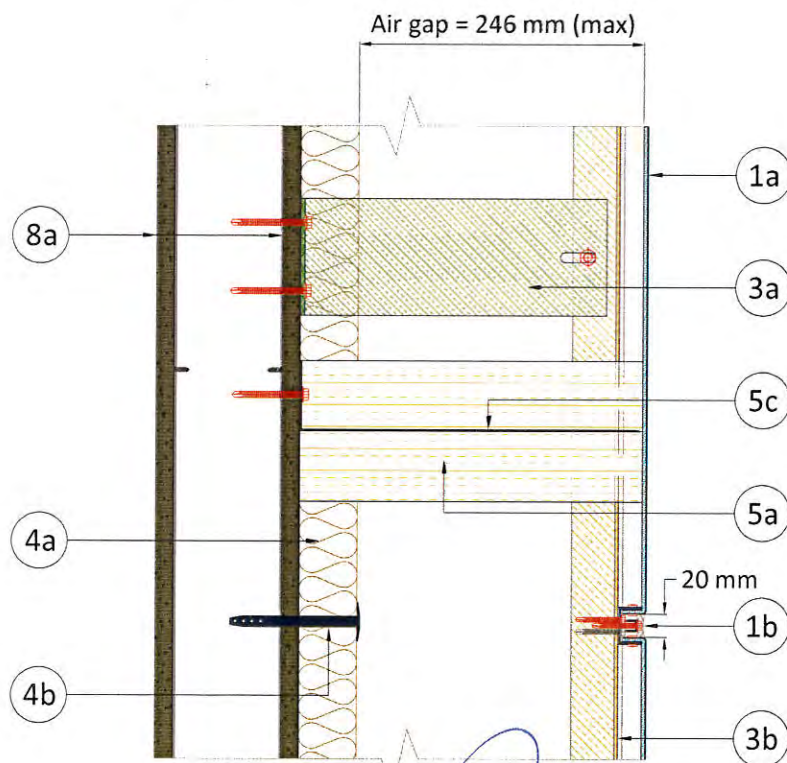
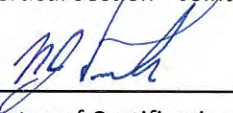


Figure 3. Vertical Section – Joint Details

Certificate Number: TBW0300672

Page 4 of 9
Issue 2


Director of Certification
Nicholas Purcell

Seal number: 101770

Issued: 05 Oct 2023
Valid to: 04 Oct 2026

This Certificate is the property of Thomas Bell-Wright International Consultants UAE.
Registered office: P.O. Box 26385, Dubai, UAE. F 19 Scheme Certificate Issue 7 Issued: Feb 2020

This document must not be reproduced, except in its entirety and with the express permission of Thomas Bell-Wright International Consultants.

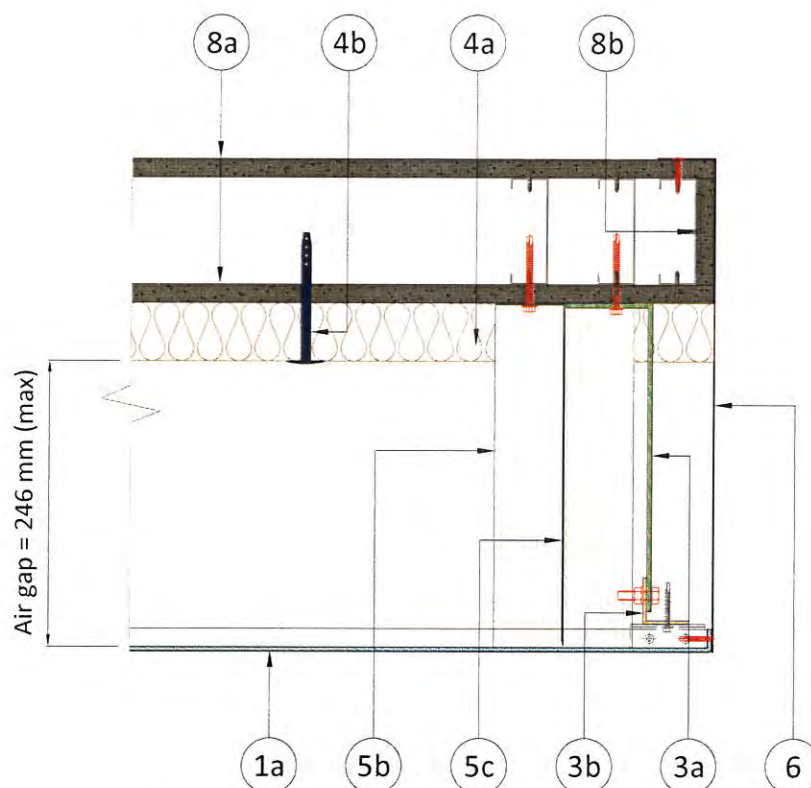


Figure 4. Horizontal Section – Window Details

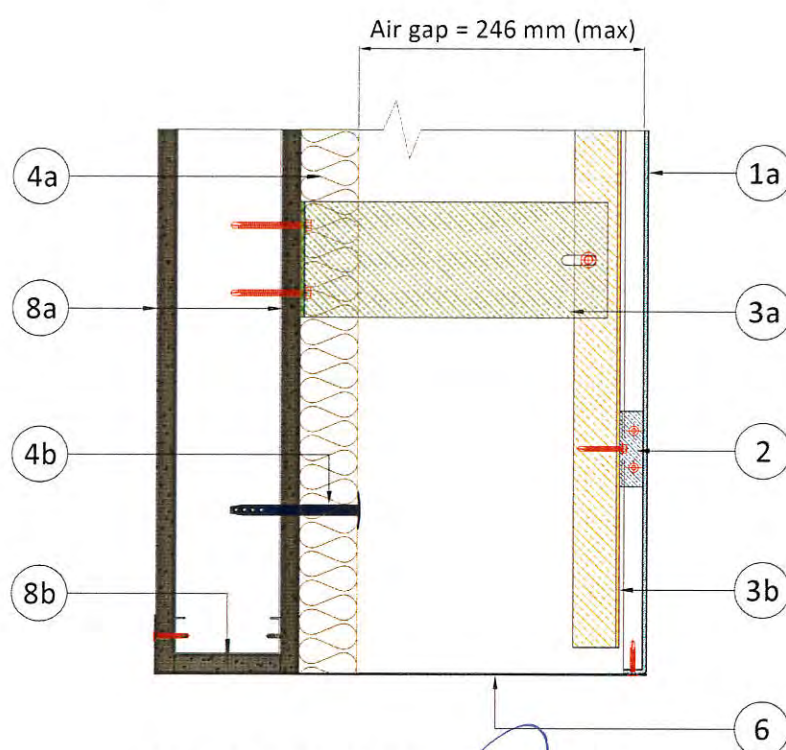
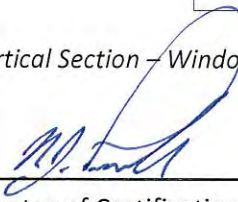


Figure 5. Vertical Section – Window Details

Certificate Number: TBW0300672

Page 5 of 9
Issue 2


Director of Certification
Nicholas Purcell

Seal number: 101770

Issued: 05 Oct 2023
Valid to: 04 Oct 2026

This Certificate is the property of Thomas Bell-Wright International Consultants UAE.
Registered office: P.O. Box 26385, Dubai, UAE. F 19 Scheme Certificate Issue 7 Issued: Feb 2020

This document must not be reproduced, except in its entirety and with the express permission of Thomas Bell-Wright International Consultants.

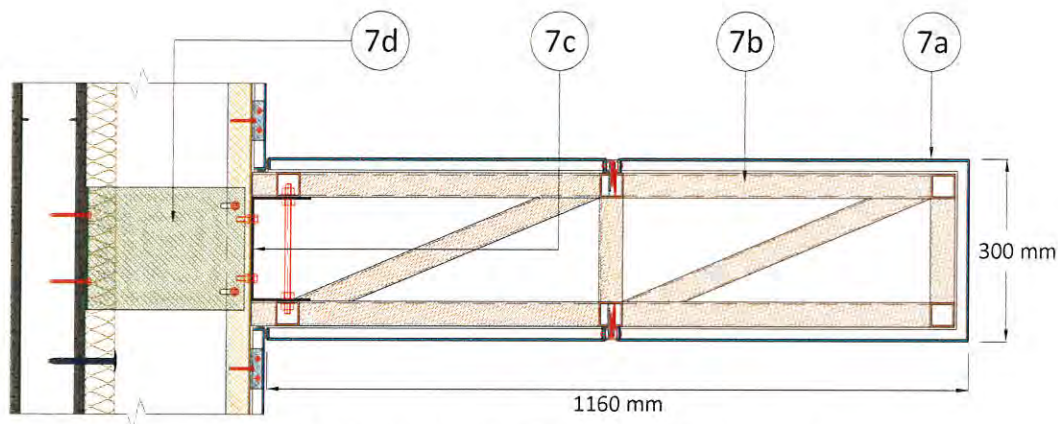


Figure 6. Vertical Section – Canopy and Soffit Details

1. Cladding Element

1a. Aluminium Composite Panel

Tray profile" Aluminium Composite Panel with 20 mm deep flanges. The panel corners shall be reinforced with ACP trimming splices (30 × 16 × 4 mm, length × width × thickness), which shall be fixed to the flanges using 2 nos. Ø4 × 21 mm aluminium blind rivets. The details of the ACP are as follows:

Table 1. Aluminium Composite Panel Details

Reference	"Alucopanel® A1"
Weight Per Unit Area	7.8 ± 0.5 kg/m ²
Panel Thickness	4 ± 0.2 mm
Exterior Facing (Top Skin)	0.5 ± 0.02 mm thick Aluminium Alloy 3105-H16, 25-27 microns thick Polyvinylidene Fluoride (PVDF) coating
Interior Facing (Bottom Skin)	0.5 ± 0.02 mm thick Aluminium Alloy 3105-H16, 5-7 microns thick Polyester (PE) coating
Adhesive	Material: Polyethylene-based film Thickness: 30 ± 2 microns Density: 920 ± 10 kg/m ³
Core	Material: Inorganic modified mineral core Thickness: 3 ± 0.1 mm Density: 1600-1900 kg/m ³
Maximum Panel Width	3149 mm
Minimum Panel Width	200 mm
Maximum Panel Height	1880 mm
Minimum Panel Height	358 mm

1b. Panel Joint Seal

A maximum gap of 20 mm, maintained between the panel joints, shall be fitted with a 10 × 10 × 1.4 mm (web × flange × thickness) Aluminium U-channel (Alloy 6063-T6) using Ø4.8 × 38 mm stainless steel self-drilling hex head screws and capped with "DOWSIL™ 813C" Silicone-based sealant, applied at a nominal depth of 6 mm, extruded smoothly and flush with the exterior surface of the ACP cladding.

Certificate Number: TBW0300672

Director of Certification
Nicholas Purcell

Seal number: 101770

Page 6 of 9
Issue 2

Issued: 05 Oct 2023
Valid to: 04 Oct 2026

This Certificate is the property of Thomas Bell-Wright International Consultants UAE.
Registered office: P.O. Box 26385, Dubai, UAE. F 19 Scheme Certificate Issue 7 Issued: Feb 2020

This document must not be reproduced, except in its entirety and with the express permission of Thomas Bell-Wright International Consultants.

2. Cladding Fixing

Aluminium angles (Alloy 6063-T6), 20 × 20 × 65 × 1.5 mm (leg × leg × width × thickness) shall be fixed on the flanges of the tray using 2 nos. of Ø4 × 21 aluminium blind rivets at a nominal spacing of 150 mm from the corners and 300 mm centres. The angles shall be fixed to the runners using Ø4.8 × 38 mm stainless steel self-tapping hex washer head screws.

3. Sub-Frame

3a. Wall Bracket

Mild Steel (Grade: S275, EN 10025) angle brackets, 75 × 265 × 100 × 4 mm (leg × leg × width × thickness), fixed against the base wall using 2 nos. of Ø6 × 63 mm stainless steel self-drilling hex head screw. The brackets shall be fixed at a nominal spacing of 486 to 1350 mm vertically and 350 to 600 mm horizontally.

3b. Runner

Aluminium (Alloy 6063-T6) angles, 40 × 40 × 3 mm (leg × leg × thickness), shall be fixed vertically against the wall brackets using Ø8 × 20 mm stainless steel hex head bolts and nuts.

4. Exterior Insulation

4a. Insulation Material

A single layer of mineral wool with Foil Scrim facing on one side, fixed to the base wall using metal insulation fasteners. A maximum air gap of 246 mm shall be maintained between the exterior insulation and the back of the ACP panel. The joints between slabs shall be sealed using a 50 mm wide Aluminium foil tape.

Reference: "S2XX"

Manufacturer: Fujairah Rockwool Factory

Nominal Density: 50 kg/m³

Nominal Thickness: 50 mm

Dimension: 600 × 1200 mm (width × length)

4b. Insulation Fastener

Material: Galvanised Steel

Reference: "MBA-08090"

Dimension: Ø8 × 90 mm

Manufacturer: Rawlplug SA

Fixing Details: 5 nos. fixed for each slab

5. Cavity Fire Barrier

5a. Horizontal Cavity Fire Barrier

A full-seal cavity fire barrier shall be mechanically secured to the base wall using steel fixing brackets. The cavity fire barrier shall be installed horizontally at every floor slab termination.

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

Reference: "Siderise® CH-120/120"

Dimension: 120 × 300 mm (thickness × depth)

Nominal Density: 75 kg/m³

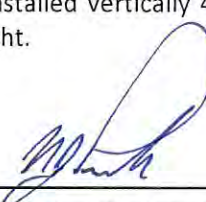
Manufacturer: Siderise Insulation Ltd – UK

5b. Vertical Cavity Fire Barrier

A full-seal cavity fire barrier shall be mechanically secured to the base wall using steel fixing brackets. The cavity fire barrier shall be installed vertically 40 mm from the vertical edges of the window opening and extended at full height.

Certificate Number: TBW0300672

Page 7 of 9
Issue 2


Director of Certification
Nicholas Purcell

Seal number: 101770

Issued: 05 Oct 2023
Valid to: 04 Oct 2026

This Certificate is the property of Thomas Bell-Wright International Consultants UAE.
Registered office: P.O. Box 26385, Dubai, UAE. F 19 Scheme Certificate Issue 7 Issued: Feb 2020

This document must not be reproduced, except in its entirety and with the express permission of Thomas Bell-Wright International Consultants.

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

Reference: "Siderise® CW-FS120"

Dimension: 120 × 310 mm (thickness × depth)

Nominal Density: 75 kg/m³

Manufacturer: Siderise Insulation Ltd – UK

5c. Cavity Barrier Bracket

Material: Galvanised steel

Reference: "B195 G"

Dimension: 320 × 25 × 1 mm (total length × height × thickness)

Manufacturer: Siderise Insulation Ltd – UK

Fixing: Fixed to the base wall at a nominal spacing of 300 mm from the ends and 600 mm centres using Ø4.6 × 38 mm stainless steel self-drilling hex head screws

5d. Foil Tape

Material: Aluminium Foil Tape

Reference: "Siderise RFT120"

Manufacturer: Siderise Insulation Ltd., UK

Width: 120 mm

Application: Used to seal the gaps between cavity fire barrier slabs

6. Window Flashing

The window perimeter shall be covered with a pre-bent 1 mm thick Aluminium sheet (Alloy 3105-H34), overlapping the interior of the base wall by 50 mm. The window flashing shall be fixed to the base wall using Ø4.8 × 19 mm stainless steel self-drilling hex washer head screws at a nominal spacing of 152 mm.

7. Soffit and Canopy

Two canopies, with a nominal spacing of 304 mm, shall be projected beyond the outer planar surface of the wall by a nominal projection of 1160 mm, as shown in Figure 6. The canopies shall be located along the 1st floor slab.

7a. Soffit and Canopy Cladding

Aluminium Composite Panels (Item 1a) shall be bent to cover the framing system on all sides. The panels shall be fixed to the framing system using cladding fixings (Item 2). The cladding fixings shall be fixed to the flanges of the panels using 2 nos. of Ø4 × 21 mm aluminium blind rivets.

7b. Sub-Frame

The structural frame of the canopy, with overall dimensions of 2113 × 1175 × 250 mm (length × width × height), shall be comprised of welded Aluminium (Alloy 6063-T6) square hollow section (SHS) profiles, 40 × 40 × 3 mm.

7c. Frame Fixing

Aluminium (Alloy 6063-T6) U-channel, 175 × 65 × 65 × 40 × 4 mm (web × flange × flange × width × thickness) shall be fixed to the soffit frame using Ø9 × 210 mm threaded stainless steel rod with nuts. The U-channels shall be fixed to the runners using 2 nos. of Ø8 × 25 mm hex head bolt and nut.

7d. Canopy Bracket

Mild Steel (Grade: S275, EN 10025) angle brackets, 75 × 265 × 200 × 4 mm (leg × leg × width × thickness), fixed against the base wall using 2 nos. of Ø6 × 63 mm stainless steel self-drilling hex head screw. The brackets shall be fixed at a nominal horizontal spacing of 350 to 600 mm.

Certificate Number: TBW0300672

Page 8 of 9
Issue 2


Director of Certification
Nicholas Purcell

Seal number: 101770

Issued: 05 Oct 2023
Valid to: 04 Oct 2026

This Certificate is the property of Thomas Bell-Wright International Consultants UAE.
Registered office: P.O. Box 26385, Dubai, UAE. F 19 Scheme Certificate Issue 7 Issued: Feb 2020

This document must not be reproduced, except in its entirety and with the express permission of Thomas Bell-Wright International Consultants.

8. Base Wall

8a. Interior & Exterior Gypsum Board

1220 × 2400 × 15.9 mm (width × length × thickness) Type X gypsum boards shall be fixed vertically onto 1.2 mm thick galvanised steel studs and tracks using Ø3.5 × 35 mm zinc-coated drywall screws at 300 mm centres vertically. The board joints shall be covered with glass fibre multi-purpose self-adhesive plasterboard jointing tape and jointing compound. The screw heads shall also be covered with the jointing compound.

8b. Steel Studs and Tracks

Galvanised steel (ASTM A653/A653M- Commercial Grade) studs, 92 × 32 × 32 × 9 × 1.2 mm (web × flange × flange × lip × thickness) and tracks, 95 × 25 × 25 × 1.2 mm (web × flange × flange × thickness) welded directly to the test frame.

F. Approved Manufacturing Location

Sublease Plot # TP010105B,
National Industries Park,
P.O. Box 18022, Dubai,
United Arab Emirates

Certificate Number: TBW0300672

Page 9 of 9
Issue 2



Director of Certification
Nicholas Purcell

Seal number: 101770

Issued: 05 Oct 2023
Valid to: 04 Oct 2026

This Certificate is the property of Thomas Bell-Wright International Consultants UAE.
Registered office: P.O. Box 26385, Dubai, UAE. F 19 Scheme Certificate Issue 7 Issued: Feb 2020

This document must not be reproduced, except in its entirety and with the express permission of Thomas Bell-Wright International Consultants.