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مختبر الإمارات للسلامة
EMIRATES SAFETY LABORATORY

ESLGlobal.com

CERTIFICATE OF CONFORMITY

Issue: **02**

Certificate number: **ESL-24-11679**

Pursuant to provisions of the Certification scheme on Global Conformity Certification of fire and life safety products (CS-GCC, scheme type 5), Emirates Safety Laboratory hereby grants this certificate of conformity to the product described below:

"ABAG Façade Wall Cladding System" 3 mm Thick Coated Solid Aluminium Panel
(ESL system designation: FSAN-0220-11679)

Placed on the market under the name or trade mark of:

Al Barary Aluminium and Glass L.L.C.
P.O. Box 18792, Dubai Investment Park 2,
Dubai, United Arab Emirates

Manufactured in the following location(s):

Al Barary Aluminium and Glass L.L.C.
P.O. Box 18792, Dubai Investment Park 2,
Dubai, United Arab Emirates

Complies with the requirements of the standard(s) as detailed below:

NFPA 285 (2025) Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components

The certificate was first issued on **30 August 2024** and remains valid under the condition that the Certificate Holder fulfils the requirements of the agreement on certification supervision no. **0273/SA/24**.

Signed for ESL	Tomasz Kielbasa Certification Manager	14 March 2025 Date of issue	29 August 2027 Expiry date

This Certificate remains valid till date stated above, unless suspended, withdrawn or terminated. This certificate will not be valid if the manufacturer makes any changes affecting product conformity, which have not been notified to, and agreed in writing with ESL. This Certificate is an electronic document and shall not be reproduced (in any form) except in full. Certificate holder is under an obligation to make references to issued certificate only in conjunction with product(s) that conform to evaluated product construction. Prior to use of this certificate, please verify its validity at ESL.directory

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GCC ACCREDITATION CENTER GAC
Product Certification
ISO/IEC 17065:2012
APC 0097

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CERTIFIED PRODUCT:

Product / System Description:

"ABAG Façade Wall Cladding System" 3 mm Thick Coated Solid Aluminium Panel is a non-loadbearing external façade wall system/assembly design where a cladding panel (referred to as "3 mm Thick Coated Solid Aluminium Panel") are installed on the aluminium extruded profile runner fixed to a wall bracket. Mineral wool insulation slabs are installed onto the base wall (substrate) using a GI insulation pin. Cavity barriers are installed horizontally & vertically between the base wall and solid aluminium panels where the mineral wool insulation slab is interrupted perpendicularly. The vertical panel joint gaps were fitted with aluminium extruded clip profiles recessed from the panel exterior surface. Horizontal panel joints were closed by overlapping panel edges.

System testing according to NFPA 285 (2025) Edition:

1. NFPA 285 standard provides a test method for determining the fire propagation characteristics (on post-flashover fires of interior origin) of exterior wall assemblies and panels used as components of curtain wall assemblies that are constructed using combustible material or that incorporate combustible components.
2. Overall test result: ***PASSED***

Test Performance Evaluation Summary Table			
No.	Tested Requirements	Test Observation	Pass / Fail
1	**Flame propagation: Exterior face of the test specimen** Flames emitting from the surface of the exterior face of the test specimen shall not reach a height of 10 ft or greater above the top of the window opening.	Flames **did not reach** 10 ft above the window opening.	**Pass**
2	**Flame propagation: Exterior face of the test specimen** Flames emitting from the surface of the exterior face of the test specimen shall not reach a horizontal distance of 5 ft or greater from the vertical centerline of the window opening.	Flames **did not reach** a lateral distance of 5 ft from the vertical centerline.	**Pass**
3	**Flame propagation to adjacent horizontal spaces** Flames shall not occur beyond the intersection of the test specimen and the side walls of the test apparatus.	There was **no** visible flaming beyond the intersection of the side walls and test apparatus.	**Pass**
4	**Flames in second-story test room** Flames shall not occur in the second-story test room.	There was **no** visible flaming in the second-story test room.	**Pass**
5	**Flame propagation: Exterior face of the test specimen** Temperatures measured at specified locations shall not exceed 1000 °F.	Temperatures **did not exceed** the 1000 °F limit.	**Pass**
6	**Horizontal Flame propagation: Combustible components and insulation** Temperatures measured at specified locations in the wall cavity air space shall not exceed 1000 °F.	Temperatures **did not exceed** the 1000 °F limit.	**Pass**
7	**Vertical Flame propagation: Combustible components and insulation** Temperatures measured at specified locations in the wall cavity air space shall not exceed 1000 °F.	Temperatures **did not exceed** the 1000 °F limit.	**Pass**
8	**Temperatures in second-story test room** Temperatures measured 1 in. (25 mm) from the interior surface of the test specimen within the second-story test room shall not exceed 500 °F above the ambient air temperature of the test facility at the start of the fire test.	Temperatures **did not exceed** 500 °F above the ambient air temperature.	**Pass**

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3. Details of external façade wall assembly/system components specifications covered in this certificate.

a. Design no. (reference drawings by sponsor):

DHE-EL-TX-FE-FT-SH-01 to DHE-EL-TX-FE-FT-SH-08Rev.00

b. Base Wall Assembly:

The base wall, made of a 15.9 mm thick Type X (GW-TX) Knauf gypsum board material is constructed to a galvanized steel framing via 92 x 32 x 1.2 mm (w x h x t) studs using Knauf TB ø 3.5 x 35 mm self-tapping screws. A single strip of 50 mm wide Knauf joint tape & Knauf ready gips jointing compound is applied along all exterior meeting edges of the boards, including all exposed screw heads.

c. Framing System:

i. Wall Brackets: Mild Steel (by Al Barary Alum. & Glass LLC or **ABAG LLC**); Dimensions: 40 x 454 x 150 x 5 mm (w x l x h x t).
ii. Runner Profiles: Aluminium Extruded profiles (by ABAG LLC); Dimensions: size varies using 3 mm (t) aluminium.
iii. L-Angle: Aluminium (by ABAG LLC); Dimensions: 40 x 40 x 3 mm (w x h x t).

d. Cavity Insulation & Cavity Fire Barrier System:

i. Single layer of 50 mm thick insulation installed on the entire exterior face of base wall: Insulation made of a mineral wool slab with aluminium facing in one side, with density - 50 kg/m³ & dimensions, 1200 x 600 x 50 mm (h x w x t) by Saudi Rock Wool ref. Saudi Rockwool 50 x 50 (+) Insulation holder pin, SS 316, ø 8 x 110 mm (+) Aluminium joint tape, 45 mm wide.
ii. Cavity Fire Barrier System:
Fixed horizontally, Non-combustible stone wool Lamella Core with intumescent seal for ventilated façade with density – 75 kg/m³ & pre-cut dimensions (475 x 120 mm: d x t) by Siderise Insulation Limited ref. RH 25-120/60 (+) Fixing brackets, galvanized mild steel, 24 x 475 x 1 mm (w x l x t), by Siderise Insulation Limited ref. RS 550 G/S (+) Siderise RFT120 aluminium joint tape.
iii. Fixed vertically, Non-combustible stone wool Lamella Core with density – 75 kg/m³ & pre-cut dimensions (520-uncompressed x 120 mm: d x t) by Siderise Insulation Limited ref. RV-120/120 (+) Fixing brackets, galvanized mild steel, 25 x 550 x 1 mm (w x l x t), by Siderise Insulation Limited ref. B335G (+) Siderise RFT120 aluminium joint tape.

e. Exterior Cladding & Support Hardware:

i. Panels are comprised of a Coated Solid Aluminium Panel by ABAG, ref. as **"3 mm Coated Solid Aluminium Panel"** coated with AkzoNobel – Interpon D2525 powder coating with a nominal thickness of 3 mm, fabricated and folded into tray profile with a nominal bend of 32 mm on the edges. The panels were fixed and hung onto aluminium extruded main profiles using ø4.6 x 54 mm and aluminium cleats – 20 x 20 x 2 mm (l x w x t) fixed on the panel were fastened into a 40 x 40 x 2.8 mm (l x w x t) L-angle mounted on the based wall.
ii. The window header, jambs, & sill are covered with return bends of the coated solid aluminium panel material.
iii. Perimeter edges (top & sides) are covered with L-angled aluminium sheet and fixed with ø4.8 x 16 mm stain steel self-tapping screws. 20 mm depth of Dolphine Fire Stop Sealant was used to seal the perimeter gaps.
iv. Total of 14 nos. panels with a maximum dimension of 1920 x 3350 x 2323 mm (w x h) and a minimum dimension of 300 x 90 mm (w x h).
v. Total gap = **500** mm bet. panel exterior face & base wall, Total gap = **497** mm bet. panel interior face & base wall, Total air cavity = **447** mm bet. panel interior face and insulation.

f. Panel Gap & Termination Details:

An aluminium extruded clip profile, 10 x 10 x 1.25 mm (w x h x t) by ABAG, was used to cover the vertical panel joint gap by pressure-fitting along the joints. Horizontal panel joints were closed by overlapping the panel top/bottom edges (bottom pieces first fixed to aluminium extruded main profile).

Note: * - Based on the analysis & referring to ESL-24-11678 Issue 02 certificate, the tested coated solid aluminium panel is interchangeable with following types:

- Solid Aluminium Panel (3mm thick) with AkzoNobel - Interpon D2525 Powder Coating
- Solid Aluminium Panel (3mm thick) with Jotun – Super Durable 2900 (SD2900) Powder Coating

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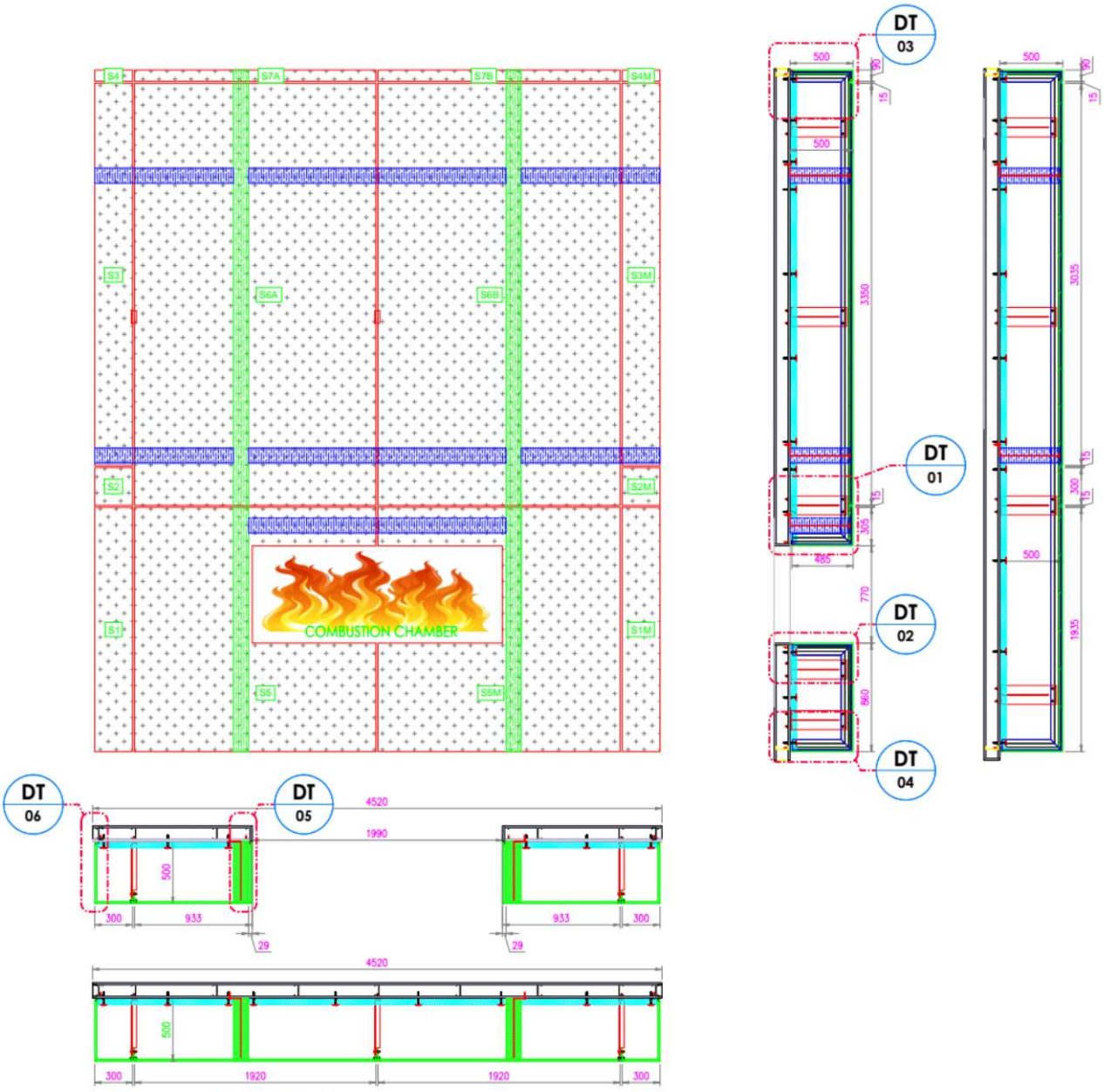
4. Exterior wall assembly specific section details (see section 3.a. reference design no.):



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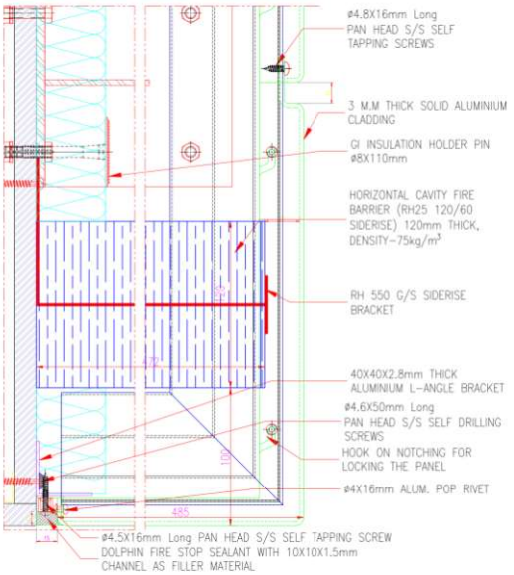
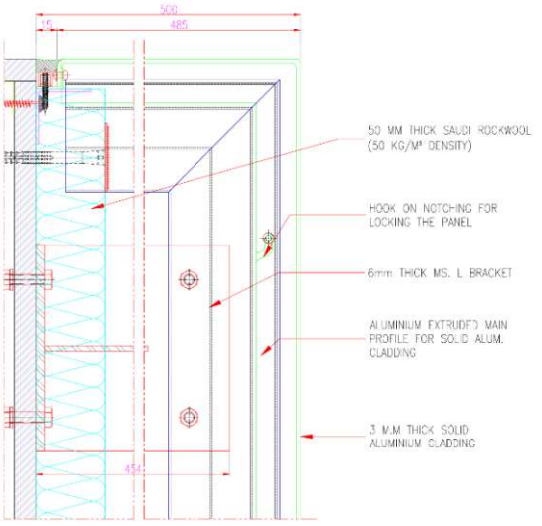
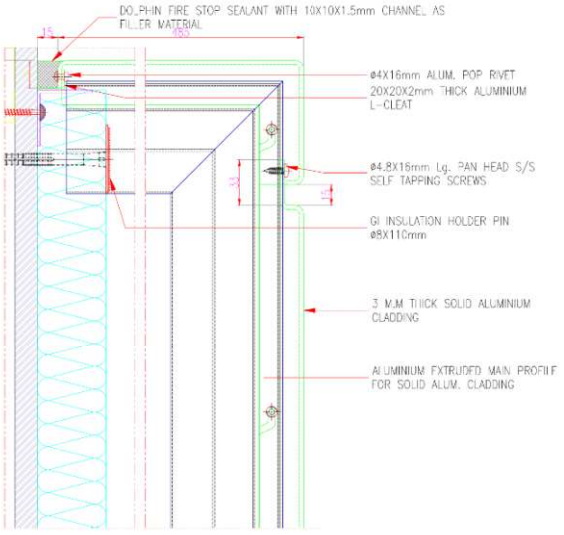


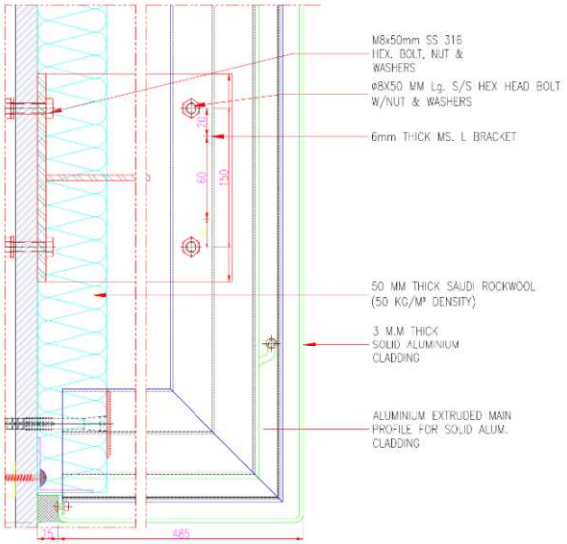
Detail 1: Window Header



Detail 2: Window Sill



Detail 3: Top Side Detail



Detail 4: Bottom Side Detail

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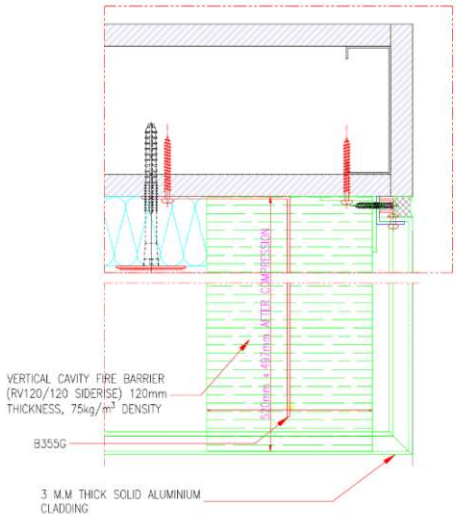
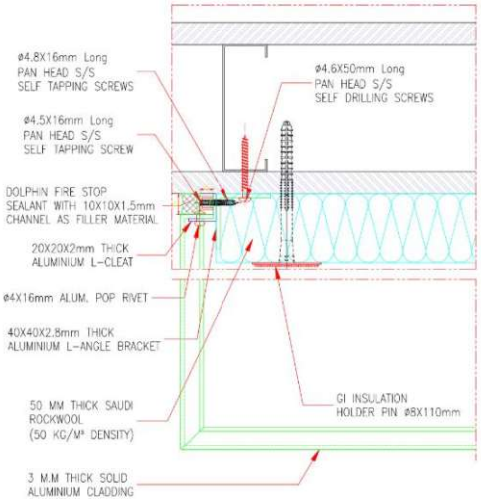


Detail 5: Window Jamb



Detail 6: Side Edge Detail

Limitation of use:

1. This certification covers only those exterior wall assembly/system components specifications described in section 3 above.
2. This certification does not cover the fire resistance performance of the exterior wall assembly.
3. Actual construction referred to the system/assembly in this certificate shall conform to the design of the tested system/assembly.

Additional notes:

1. System/Assembly testing and certification in compliance with NFPA 285 (2025) covers the evaluation of the performance of the exterior wall assembly and panels used as a component of the curtain wall assembly. It does not provide an evaluation of individual components (e.g. thermal insulation, cavity fire barriers, weather silicon as a joint sealant, etc.) incorporated within the wall assembly.
2. The tested system/assembly panel sizes indicated in section 3 above are for reference only. NFPA 285 test does not limit the panel sizes as in actual condition provided that actual installation complies with the tested system/assembly details, including the type of cladding panel, support fixing, cavity fire barrier placement, joint type & covering, etc.

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