THOMAS BELL-WRIGHT
A PHENNA GROUP COMPANY

IAS ACCREDITED Product Certification Agency

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

to

Gresmanc Internacional SL

Carretera Consuegra km. 1,200,
45470 Los Yébenes, Toledo, Spain

for

"Favemanc XB Pro 17"
Extruded Ceramic Panel Exterior Wall Cladding System "Favemanc XBpro"
Test Method: NFPA 285
(System Designation: N014B10-17)

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 16th day of October 2024

THOMAS BELL-WRIGHT INTERNATIONAL CONSULTANTS 103069 CERTIFIED

Sandy Dweik
Chief Executive Officer

Nicholas Purcell
Director of Certification

Certificate Number: TBW0300730

Initial registration: October 16, 2024 Issued: October 16, 2024 Expiration: October 15, 2027
File Name: YF063_CRT_SD03FP_Issue3_730_(f) Issue 3

"Favemanc XB Pro 17"
Extruded Ceramic Panel Exterior Wall Cladding System "Favemanc XBpro"
(System Designation: N014B10-17)

A. Certification is given for "Favemanc XB Pro 17" Extruded Ceramic Panel Exterior Wall Cladding System "Favemanc XBpro", which has **successfully met** the requirements for fire propagation characteristics when evaluated against NFPA 285 – "Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components", subject to the limitations stated herein.

Note: The achieved fire performance on tests conducted to NFPA 285-2019 Edition has been assessed to the latest edition of the standard, NFPA 285-2023 Edition, and found to comply since the extent of revisions of the standard does not impact the existing test evidence as documented in report YF064-3/11/10/24/01.

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 the 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) TI129 Rev.0), Technical Verification and Proof of Performance, compliance with Factory Production Control requirements, and surveillance and 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 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*; and,
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 non-loadbearing exterior wall 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*.

***** NFPA 285***

Certificate No.: TBW0300730

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Nicholas Purcell

Seal No.: 103069

Issued: 16 Oct 2024
Valid to: 15 Oct 2027

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 components which were 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.

D.6. The components used were 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. Any Resistance to Fire rating
d. The toxicity level of smoke developed during combustion
e. Effect of aggravated flame spread behaviour of an assembly resulting from the proximity of combustible materials
f. Effects of combustible accessories installed or fixed on the surface of exterior cladding material such as laminates, banners, signage, and alike
g. Effects of radiation from nearby fires

E. System Configuration

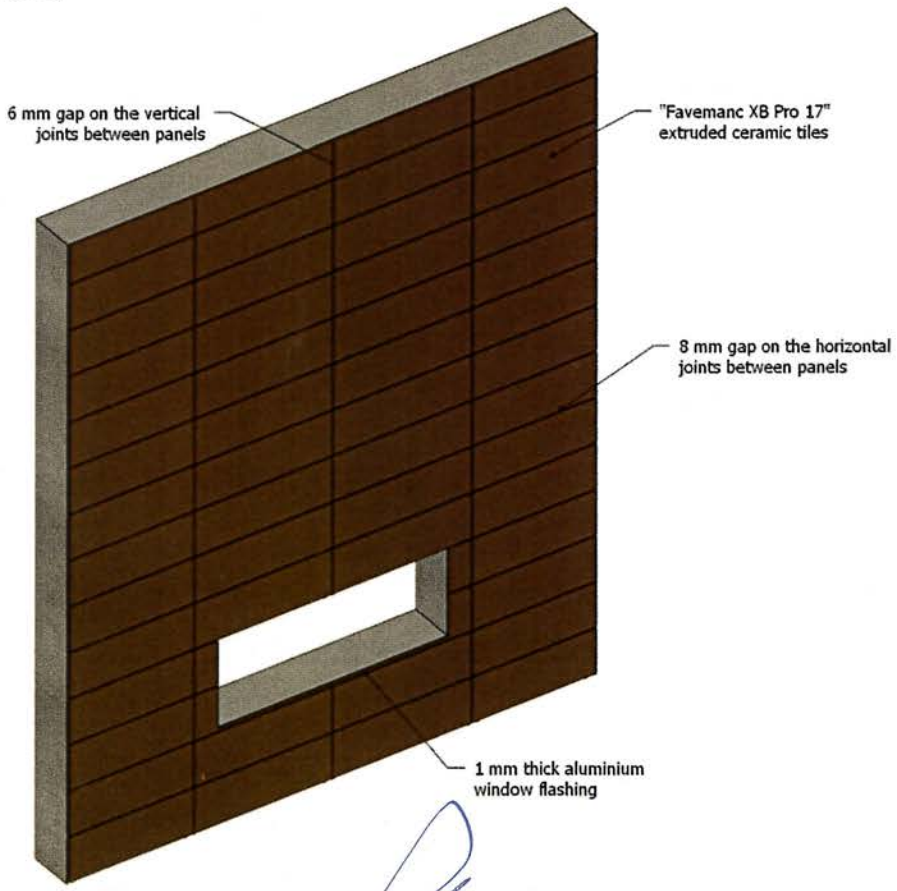


Figure 1. *"Favemanc XB Pro" Façade System*

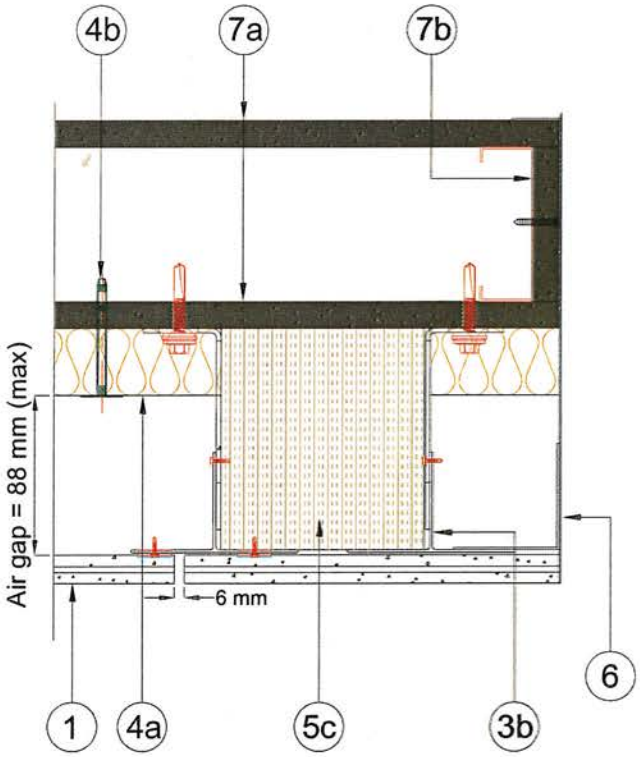


Figure 2. *Horizontal joint and window section details*

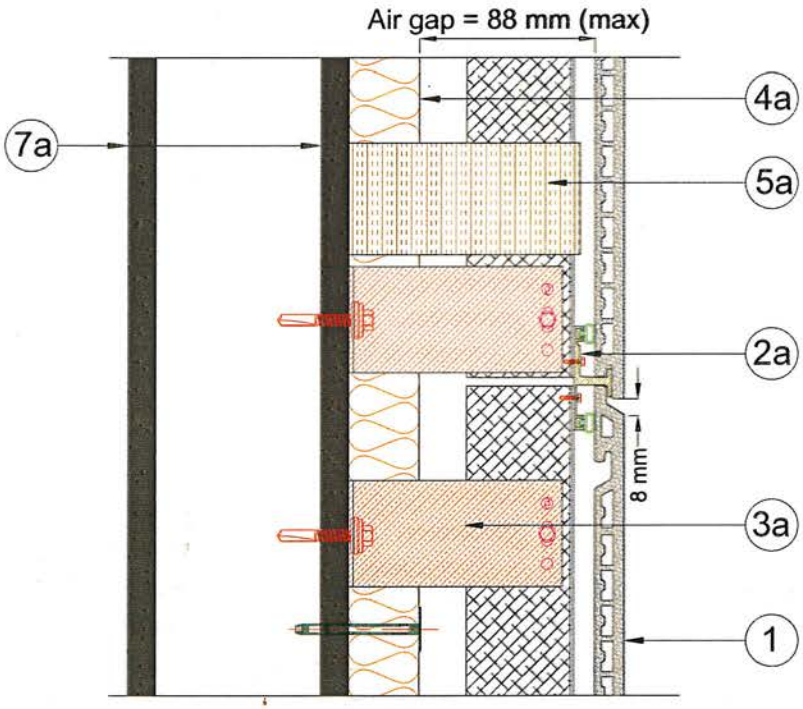


Figure 3. *Vertical section – joint details*

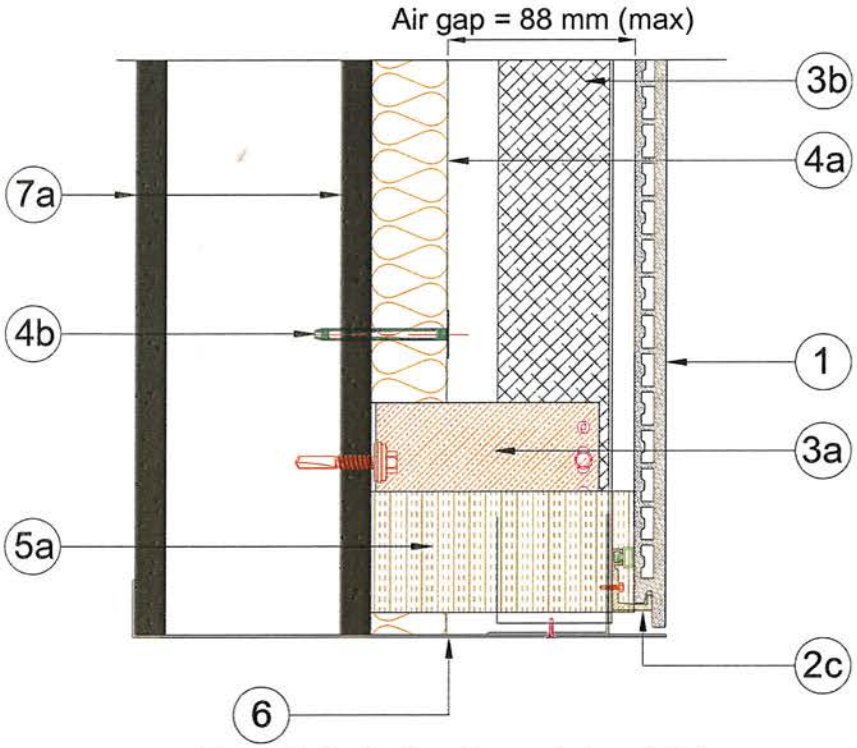


Figure 5. *Vertical section – window details*

1. Cladding Element

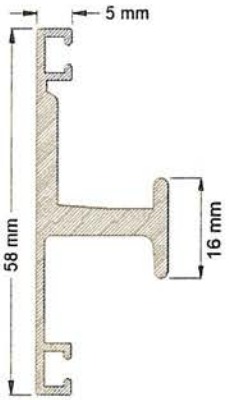
   "Favemanc XB Pro 17" extruded ceramic tiles shall be hung to the runners through the slots at the bottom of the tiles using carrier profiles at the horizontal joint and fixing clamps on the vertical joints. A maximum gap of 8 mm on the horizontal joints and 6 mm on the vertical joints between tiles shall be maintained. Details of the tiles are stated in Table 1 below:

Table 1. *"Favemanc XBpro 17" extruded ceramic tiles details*

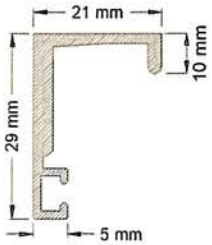
Product Reference/ Model No.	"Favemanc XB PRO 17"
Manufacturer	Gresmanc Internacional S.L.
Weight Per Unit Area	25.5 ± 0.5 kg/m²
Thickness	17.5 mm ± 8%
Standard Tile Length	1200 ± 2 mm
Standard Tile Height	400 ± 2 mm

2. Cladding Fixing

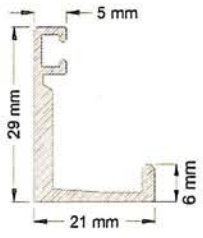
2a. Tile holder – Intermediate Profile
Material: Aluminium Alloy 6063-T6
Minimum Thickness: 2 mm
Reference: "CLIP XB PRO 17"
Fixing: Fixed on the runner using galvanised steel self-drilling countersunk screws Ø4.2 × 16 mm.



2b. Tile holder – Top Profile
Material: Aluminium Alloy 6063-T6
Minimum Thickness: 2 mm
Reference: "TOP CLIP XB PRO 17"
Fixing: Fixed on the runner using self-drilling countersunk screws Ø 4.2 × 16 mm.



2c. Tile holder – Bottom Profile
Material: Aluminium Alloy 6063-T6
Minimum Thickness: 2 mm
Reference: "BOTTOM CLIP XB PRO 17"
Fixing: Fixed on the runner using self-galvanised steel self-drilling countersunk screws Ø 4.2 × 16 mm.



2d. Gasket
Material: Ethylene propylene diene monomer, (EPDM)
Nominal Thickness: 1 mm
Reference: "EPDM 75 ShA Negro"

3. Sub-Frame

3a. Wall Brackets
Aluminium (Alloy 6063-T6) "L" angle brackets, 50 × 120 × 60 × 3 mm (leg × leg × length × thickness), shall be fixed to the base wall at a nominal spacing of 1050 to 1200 mm horizontally and 484 to 968 mm vertically. The brackets shall be fixed using 1 no. of Ø6.2 × 50 mm hex head stainless-steel bolts.

3b. Vertical Runners
Aluminium (Alloy 6063-T6) "T" profile, 100 × 60 × 1.5 mm (width × depth × thickness), shall be fixed to the wall brackets, according to the tile width, using 2 nos. of Ø5.5 × 22 mm steel hex head self-drilling screws.

4. Exterior Insulation

4a. Mineral Wool

A single layer of mineral wool with FS facing on one side shall be fixed to the base wall using galvanised steel insulation fixing. An air gap of 8 mm shall be maintained between the mineral wool and the rear face of the tiles. Joints between mineral wool boards and the exposed insulation pin heads shall be covered using aluminium foil tape 70 mm wide.

Material: Mineral wool with FS facing on one side
Reference: KIMMCO ISOVER Comfort SA Slab 50
Manufacturer: Saudi International Insulation Manufacturing Company (SIIMCO)
Nominal Density: 50 kg/m³
Slab Dimensions: 600 × 1200 × 50 mm (width × length × thickness)

4b. Insulation Fixing

Material: Galvanised steel insulation anchors
Reference: Ultra-Metal Insulation Plug
Manufacturer: ULTRA
Dimension: Ø9mm × 110 mm

5. Cavity Fire Barrier

5a. Horizontal Cavity Barrier Material

Description: Open-state cavity fire barrier composed of pre-compressed stonewool Lamella core, with reinforced aluminium foil faces, with a continuous high performance reactive intumescent strip on the leading edge. The joints shall be covered with 120 mm wide aluminium foil tape (RFT 120/45).
Dimension: 120 × 120 mm (depth × height)
Density: 75 kg/m³ (nominal density)
Reference: RH25-120/90
Manufacturer: Siderise Insulation Ltd.
Fixing: Installed horizontally 20 mm above the window header edge and adjacent to every floor slab.

5b. Horizontal Cavity Barrier Fixing Bracket

Material: Galvanised steel
Dimension: 350 × 25 × 1 mm (length × width × thickness)
Reference: RS350
Manufacturer: Siderise Insulation Ltd.
Fixing details: Fixed to the basewall using Ø8 × 35 mm self-drilling screws at a nominal distance of 250 mm centres.

5c. Vertical Cavity Barrier Material

Description: Full-seal width cavity fire barrier composed of pre-compressed stonewool Lamella with an integral foil facing. The joints shall be covered with 120 mm wide aluminium foil tape (RFT 120/45).
Dimension: 150 × 120 mm (depth × height)
Density: 75 kg/m³ (nominal density)
Reference: RV-120/120 constructed from CW-FS120
Manufacturer: Siderise Insulation Ltd.
Fixing location: Installed vertically within 60 mm from the vertical edges of the window opening, extending up to the full height of the cladding assembly.

5d. Vertical Cavity Barrier Fixing Bracket

Material: Galvanised steel
Dimension: 355 × 25 × 1 mm (length × width × thickness)
Reference: B65/110
Manufacturer: Siderise Insulation Ltd.

Fixing details: Fixed to the basewall using Ø7 × 35 mm self-drilling screws at a nominal distance of 400 mm centres.

6. Window Flashing
   Minimum 1 mm thick Aluminium sheet fixed as per section 5.7.3 of NFPA 285 – 2019/2023 Edition. Other types of materials that have achieved an equal or better Reaction to Fire Classification than the cladding material may be used as a window or perimeter flashing.

7. Base Wall
   7a. Interior & Exterior Gypsum Board
   1220 × 2400 × 15.9 mm (width × height × thickness) "Type X" gypsum board fixed on 1.2 mm thick galvanised steel studs and tracks. The boards are fixed to the studs and tracks using Ø3.5 mm × 45 mm zinc-coated drywall screws at a nominal spacing of 300 mm. The board joints were covered with gypsum board jointing tape and jointing compound. Screw heads were covered with a jointing compound.

   7b. Steel Studs and Tracks
   1.2 mm thick galvanised steel (ASTM A653/A653M- Commercial Grade) studs (92 × 32 × 32 × 9 mm, web × flange × flange × return) and tracks (95 × 25 × 25 mm, web × flange × flange) welded directly to the base frame.

F. Approved Manufacturing Location
Carretera de Consuegra, km. 1,200,
45470 Los Yébenes,
Toledo, Spain
