ALUCOSUN TECHNICAL DATA SHEET

X PANEL 3D A2

Three-Dimensional Aluminium Composite Panel — A2-s1,d0 · EN 13501-1

The X Panel is a three-dimensional composite aluminium panel, constructed from two aluminium skins bonded to a central embossed, three-dimensionally formed aluminium core. Unlike the flat core of a conventional ACP, this lattice structure gives the panel exceptional stiffness-to-weight ratio and outstanding large-format flatness. The aluminium core is non-combustible, making the A2-s1,d0 classification an inherent material property — not a treatment or additive. The surface carries a PVDF fluorocarbon coating in a broad range of colours.

Ref / **ALCS-XP-A2-TDS-001** Code / **ALCS-XPA2** Version / **v2.0 · 2026**

A2-s1,d0 EN 13501-1 · FIRE	**3D Core** 100% ALUMINIUM
4.2 kg/m² WEIGHT (4MM STD)	**8,000mm** MAX PANEL LENGTH

TECHNICAL SPECIFICATIONS

EN 13501-1 Classification	A2-s1,d0
Core Type	Three-dimensionally embossed aluminium lattice — 100% aluminium (not honeycomb)
Total Thickness	4mm standard · 3 / 6mm available
Front Skin Thickness	0.7mm standard · 0.6 / 0.5mm available
Rear Panel Thickness	0.5mm
Aluminium Alloy	AA3003 / AA5005 · H14 / H24
Panel Weight	4.2 kg/m² (4mm) · 3.9 kg/m² (3mm) · 4.6 kg/m² (6mm)
Max Width	1,570mm
Max Length	8,000mm
Coating Thickness	≥30 µm (PVDF three-coat, AAMA 2605 compliant)
Coating Warranty	Up to 30 years (PVDF three-coat, AAMA 2605, qualifying projects)

WHY X PANEL 3D CORE

The only composite panel where A2 fire performance is structural — not added.

3D LATTICE CORE
Embossed aluminium structure delivers superior panel stiffness across large-format spans

INHERENT A2 RATING
All-aluminium construction — A2-s1,d0 is a material property, not a coating or additive

SECTION 02

PERFORMANCE, COATING & APPLICATIONS

Specifications Continued

Width Tolerance	±2mm
Length Tolerance	±3mm
Thickness Tolerance	±0.2mm
Diagonal Tolerance	≤5.0mm
Surface Finish	Solid Colour · Metallic · Anodised · Woodgrain · Stone · Corten
Colour Range	600+ standard colours · Custom RAL / NCS on request
Fabrication	CNC V-groove routing + hand folding · CNC cutting · Punching
Fixing System	Concealed clip / bracket system

Standards & Certifications

A2-s1,d0
EN 13501-1
FIRE CLASS

AAMA
AAMA 2605
PVDF COATING

ISO
ISO 9001
QUALITY MGMT

30yr
COATING
WARRANTY*

Coating Systems

Coating System	Standard	Min. DFT	Warranty	Notes
PVDF Fluorocarbon — Three-coat	AAMA 2605	≥30 µm	Up to 30yr*	Standard exterior · full architectural palette
PVDF Fluorocarbon — Two-coat	AAMA 2604	≥25 µm	Project-specific	Available on request
FEVE Fluorocarbon	—	≥25 µm	Project-specific	Cold-cure option; metallic and special finishes

Typical Applications

- Supertall tower façades and high-rise curtain wall systems demanding maximum flatness and stiffness-to-weight ratio
- Large flat façade modules, faceted surfaces, and project-specific cassette systems
- Landmark cultural, civic and governmental buildings where A2 fire classification is required
- Large-format cladding panels with panel lengths up to 8,000mm
- Premium commercial and mixed-use developments seeking an architecturally distinctive surface
- Retrofit and refurbishment projects requiring lightweight A2-rated cladding

TECHNICAL CONTACT

Technical Enquiries: **spec@alucosun.com** · Commercial: **sales@alucosun.com** · **www.alucosun.com**

* 30-year coating warranty applies to PVDF three-coat (AAMA 2605) on qualifying projects. Warranty registration required. Contact sales for details.