

TECHNICAL DATA SHEET

Wallshell® V-Shield™ Panel



Characteristics

Application

Use as the exterior wall panel component with exterior insulation and a decorative finish in Wallshell® exterior wall system. The fully engineered rain screen system with a rear ventilation design removes excess moisture and heat.

Description

Wallshell® V-Shield™ panel is made from high-density fiber cement slabs, it has a large variety of textures and colors to meet customers' diverse design needs. V-shield™ panel use rivet for anchoring. V-shield™ panel has a highly effective protection layer that gives the panel long-lasting functional reliability.

Panel

Thickness

Thickness of carrier board (mm) : 8, 10, 12

Thickness of finish coating (μm) : 95~120

Sizes

All measurements are in mm:

488 x 1220;

812 x 1220;

1220 x 406; 1220 x 610; 1220 x 1220;

2440 x 406; 2440 x 610; 2440 x 1220;

Please refer to list of the product catalog.

Attention: Wallshell® V-Shield™ panels are delivered without drill holes.
Wallshell® V-Shield™ panel size is subject to be cut on site to meet the technical requirements.

Panel Technical Data

Properties		Test Method	Average Value
Dimensional Measurements		ASTM C1186	Pass
Flexural Strength	8mm thick panel	ASTM C1185	24.2MPa
(Equilibrium Conditioning)	10mm thick panel	ASTM C1185	22.7MPa
	12mm thick panel	ASTM C1185	21.3MPa
Flexural Strength (Wet Conditioning)	8mm thick panel	ASTM C1185	16.8MPa
	10mm thick panel	ASTM C1185	16.4Mpa
	12mm thick panel	ASTM C1185	16.0MPa
Density		ASTM C1185	1.64g/cm ³
Linear Change in Moisture Content		ASTM C1185	0.070%
Moisture Content		ASTM C1185	6.6%
Swelling Rate		ASTM C1185	0.15%
Water Absorption		ASTM C1185	14.9%
Water Tightness		ASTM C1185	Pass
Freeze-Thaw		ASTM C1185	Pass
Warm Water Resistance		ASTM C1185	Pass
Heat Rain Resistance		ASTM C1185	Pass
Falling Ball Impact		ASTM D1037	Pass (10J)
Flame Spread Index		ASTM E84	0
Smoke Developed Index		ASTM E84	0
Insulation Non-Combustibility		ASTM E136	Pass
Combustion Characteristics Mass Loss		ASTM E136	16.33%
Combustion Characteristics Temperature		ASTM E136	15 °C

Rise		
Finish Surface Acid Resistance	48 hour	No Abnormity
Finish Surface Alkali Resistance	96 hour	No Abnormity
Finish Surface Salt Resistance	500 hour	No Abnormity
Finish Surface Accelerated Aging	1000 hour	No Abnormity
Unit Weight	8mm thick panel	13.12 kg/m ²
	10mm thick panel	16.40 kg/m ²
	12mm thick panel	19.68 kg/m ²

8mm Thick Panel Technical Data

Properties	Test Method	Average Value
Ultimate Pressure Load (Positive Pressure) *	ASTM E330	9063 Pa
Damage Wind Load (Negative Pressure) *	ASTM E330	8800 Pa
Drawing Force of Anchoring System	ASTM C1354	798 N
Shear Force of Anchoring System (Longitudinal)	ASTM C1354	3459 N
Shear Force of Anchoring System (Transverse)	ASTM C1354	2590 N

* Maximum wind load due to environment constraints

RV Anchoring System

Z-profile Extrusion
 Hat-profile Extrusion or T-profile Extrusion
 L-profile Extrusion
 L-profile Bracket
 Rivet and Rivet Sleeve or Panel Anchor
 Fastener

Please refer to installation manual.

Substrate Requirements

Structural Substrate, such as concrete share wall, or metal framed share wall that is established with vapor barrier.

Delivery

Packaging
Wooden crate

Storage

Storage Conditions
Dry condition

Application Requirements

Apply Wallshell® SE Edge Sealant : Thoroughly cover all the cuttings and anchor holes.

Special Information

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