

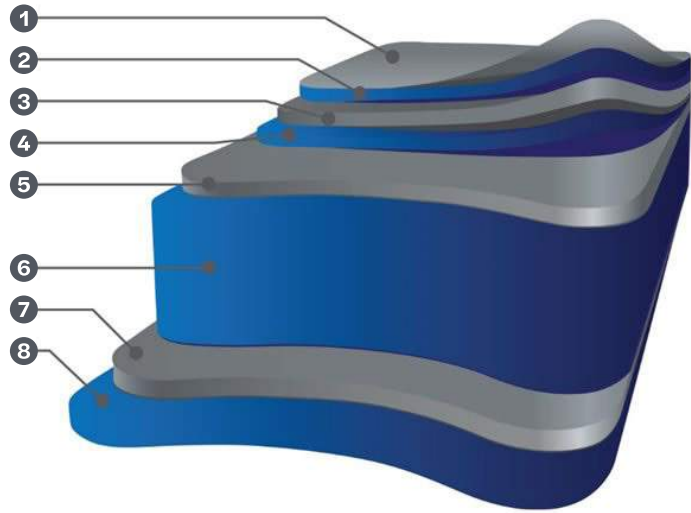


Technical

Manual

Product Composition

- ① Peel off Protective Film
- ② Clear Coating
- ③ PVDF Coloured Coating
- ④ Primer Coating
- ⑤ 0.5mm Aluminum Skin
- ⑥ 3mm organic mineral, inorganic mineral or aluminum core
- ⑦ 0.5mm Aluminum Skin
- ⑧ Polyester Anti-Corrosion Coating



Product Weight

Weight	
0.157" (4mm)	1.50 lb/ft ² [7.3 kg/m ²]

Product Tolerances

Width	± 0.079" (2mm)
Length	± 0.157" (4mm)
Thickness	± 2%
Bow	Max 0.5% of length and/or width
Squareness	Max 0.196" (4.97mm)
Surface Defects	The surface shall not have any irregularities such as dents, scratches and other imperfections in accordance with our quality assurance. Other imperfections in accordance with our quality assurance.

Standard Panel Sizes

Dimensions	
Width	Standard: 39.37", 49.2", 62" (1000mm, 1250mm, 1574mm) Custom: up to 78.74" (2000mm)
Length	Standard: 122", 146", 196" (3099mm, 3708mm, 4980mm) Custom: up to 256" (6502mm)

Technical data

Standards	Description	Test Standard	Result
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PROPERTIES

ASTM E136	Fire Performance of 3003 Aluminum	$\Delta T < 86^{\circ}\text{F}$	PASS
ASTM E8	Yield Strength of 3003 in accordance with ASTM B209	$>17404.5 \text{ psi [120 MPa]}$	PASS
ASTM E8	Tensile Strength in accordance with ASTM B209	$>12328.2 \text{ psi [85MPa]}$	PASS
ASTM E8	Elongation in accordance with ASTM B209	$>3\%$	PASS
ASTM C393	Core Shear Ultimate Stress	$>150 \text{ psi [1.03 MPa]}$ (Test Specimen Average)	PASS
ASTM C393	Flexure Stress	$>15695 \text{ psi [108.21 MPa]}$ (Test Specimen Average)	PASS

IMPACT RESISTANCE

ANSI FM4473	Severe Hail Exposure Test	PASS/FAIL	PASS
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THERMAL PERFORMANCE

ASTM D696	Coefficient of Linear Expansion	$13.8 \times 10^{-6} \text{ in/in}^{\circ}\text{F}$	
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BOND INTEGRITY

ASTM C297	Flatwise Tensile Strength	$>400 \text{ psi [2.76 MPa]}$	PASS
ASTM D1781	Climbing Drum Peel Test	$>22.5 \text{ in-lb/in [100 mm-N/mm]}$	PASS
ASTM D1002	Peak Shear Strength	$>515 \text{ psi [3.55 MPa]}$	PASS

FIRE PERFORMANCE

ASTM E84	Flame Spread	<25	PASS
ASTM E84	Smoke Development	<450	PASS
NFPA 285	Fire propagation characteristics	PASS/FAIL	PASS
CAN/ULC - S134	Fire test of exterior wall assemblies	PASS/FAIL	PASS

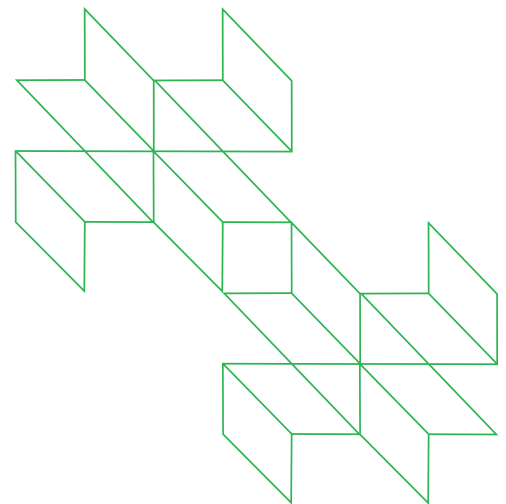
Technical Data – PVDF Coating

PVDF Coating	Descriptions	Test	Test Result
ASTM B117	Salt Spray Resistance	5% salt fog at 95°F	Passes 4000 hrs. Less than 1/16" avg creepage from scribe. None or few #8 blisters
ASTM D523	Specular Gloss Test	Standard @ 60°	Varies per finish
ASTM D1308	Alkali Test	10%, 25% NaOH, 1hr	No Effect
ASTM D714	Blistering of Paint Test	100% Relative Humidity @ 95°F	Passes 4000 hrs.
ASTM D2244	Exterior Exposure	10 years @ 45° South Florida	PASS - Max. 5 fade
ASTM D2247	Water Resistance	100% Relative Humidity @ 95°F	No #8 blisters
ASTM D2794	Reverse Impact	1.5 x metal thickness (Aluminum)	No cracking or adhesion loss
ASTM D3359	Adhesion	Reverse impact 1/16" crosshatch	No adhesion loss
ASTM D3363	Film Hardness	Pencil Test F - 2H	PASS
ASTM D4145	Prepainted Metal Coating Flexibility	T - Bend	0 - 2 T - Bend, No pick off
ASTM D4214	Chalk Resistance	10 years @ 45° South Florida	Pass - Max. 8 Chalk

Quality Control

Our dedication to fulfilling our customer's expectations is reflected in our superior quality control system, beginning at the point of specification and continuing through to delivery of our guaranteed products. All activities are carried out in a manner that:

- Uses the framework of ISO9000 Quality Standards to verify the quality of our systems
- Ensures that our products and services are of the highest standards
- Create continuous improvements to our product through the application of the best quality practices.



System-Tested Solutions

Complies to AAMA 508 and 509 when installed with Arrowhead and meets the test protocols TAS201, 202, and 203 in accordance with the Florida building code for the high velocity hurricane zone and Miami Dade County requirements.

AAMA 508 PRESSURE EQUALIZED RAIN SCREEN LEAN AND FLEX			
Standard	Test	Test Standard	Result
ASTM E283	Air Leakage of Test Buck (without panel system installed)	0.11 cfm/ft ² min. 0.13 cfm/ft ² max.	PASS
ASTM E1233	Cyclic Static Air Pressure Differential (pressure cycling)	Cycle Time Lag 0.08 sec max. Cycle Pressure Difference 12.5 psf max.	PASS
			PASS
ASTM E331	Static Water Penetration	3.20 ft ²	PASS
AAMA 501.1	Dynamic Water Penetration	3.20 ft ²	PASS
ASTM E330	Uniform Load Deflection and Uniform Load Structural	L/175 of Stiffener Length	PASS

Warranty

A product warranty of up to 20 years is provided when installed by a licenced installer. An MCM coating warranty is issued on a project specific basis and is available up to 30 years.

AAMA 509 DRAINED AND BACK VENTILATED ARROWHEAD RAIN SCREEN			
Standard	Test	Lean Results	Flex Results
ASTM E283	Air Leakage	V1	V3
ASTM E331	Static Water Penetration	W1	W1
AAMA 501.1	Dynamic Water Penetration		

VITRABOND FR PANEL OVER ARROWHEAD			
Standard	Test	Test Results	Results
TAS 202 - 94	Uniform Static Air Pressure	(+100/-150 psf)	PASS
TAS 201 - 94	Large Missile Impact Procedures	(+100/-150 psf)	PASS
TAS 203 - 94	Cyclic Winds Pressure Loading	(+100/-150 psf)	PASS



It is the responsibility of the Architect, Building Owner, General Contractor, Installer or Fabricator to ensure that the appropriate tests have been carried out on the final assembly and that the materials meet the national, regional and local building codes and regulations. As the supplier, Fairview can only offer test reports for Vitrabond and any tested wall assembly. Fairview is not responsible for determining if a variation in the wall assembly will meet the test standards.

Technical Data contained in this document is accurate at the time of writing 01/01/2020. In the event more information is required please contact the Fairview office on 860-242-2711 or email: helpdesk@fairview-na.com

