



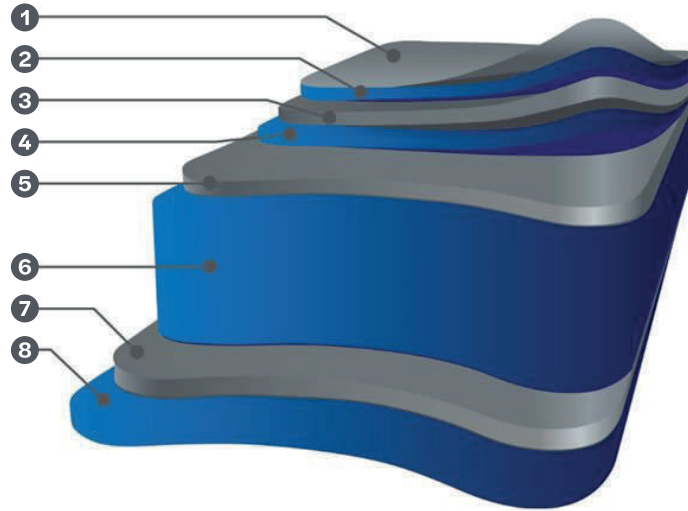
# Technical

Manual

## Product Composition

### TYPICAL COMPOSITION

- ① Peel off Protective Film
- ② Clear Coating Finish Dependent
- ③ PVDF Coloured Coating
- ④ Primer Coating
- ⑤ 0.5mm Aluminum Skin
- ⑥ 3mm Fire Retardant
- ⑦ 0.5mm Aluminum Skin
- ⑧ Chromate Conversion Coating



## Product Weight

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

## Product Tolerances

<b>Width</b>	± 0.079" (2mm)
<b>Length</b>	± 0.157" (4mm)
<b>Thickness</b>	± 2%
<b>Bow</b>	Max 0.5% of length and/or width
<b>Squareness</b>	Max 0.196" (4.97mm)
<b>Surface Defects</b>	The surface shall not have any irregularities such as dents, scratches and other imperfections in accordance with our 3rd party verified QC program assurance.

## Panel Sizes

Dimensions	
<b>Width</b>	40", 49.2", 62" (1020mm, 1250mm, 1574mm) For custom widths please get in touch
<b>Length</b>	122", 146", 196" (3099mm, 3708mm, 4980mm) Custom: up to 248" (6300mm)

## 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 C393	Core Shear Ultimate Stress	>150 psi [1.03 MPa] (Test Specimen Average)	PASS
ASTM C393	Flexure Stress	>15695 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 psi [2.76 MPa]	PASS
ASTM D1781	Climbing Drum Peel Test	>22.5 in-lb/in [100 mm-N/mm]	PASS
ASTM D1002	Peak Shear Strength	>515 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

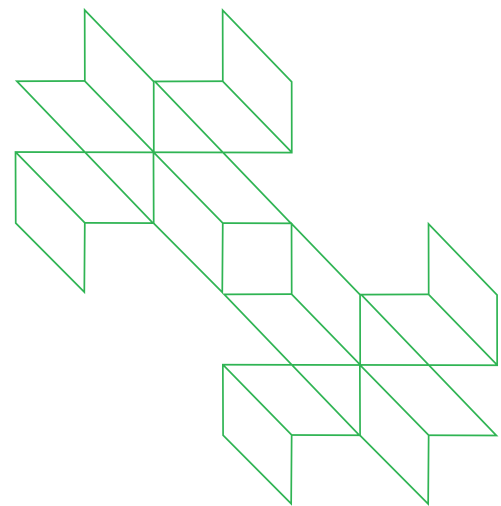
## Technical Data – AAMA 2605 Standard PVDF Coating

PVDF Coating	Descriptions	Test	Test Result
<b>ASTM B117</b>	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
<b>ASTM D523</b>	Specular Gloss Test	Standard @ 60°	Varies per finish
<b>ASTM D1308</b>	Alkali Test	10%, 25% NaOH, 1hr	No Effect
<b>ASTM D714</b>	Blistering of Paint Test	100% Relative Humidity @ 95°F	Passes 4000 hrs.
<b>ASTM D2244</b>	Exterior Exposure	10 years @ 45° South Florida	PASS - Max. 5 fade
<b>ASTM D2247</b>	Water Resistance	100% Relative Humidity @ 95°F	No #8 blisters
<b>ASTM D2794</b>	Reverse Impact	1.5 x metal thickness (Aluminum)	No cracking or adhesion loss
<b>ASTM D3359</b>	Adhesion	Reverse impact 1/16” crosshatch	No adhesion loss
<b>ASTM D3363</b>	Film Hardness	Pencil Test F - 2H	PASS
<b>ASTM D4145</b>	Prepainted Metal Coating Flexibility	T - Bend	0 - 2 T - Bend, No pick off
<b>ASTM D4214</b>	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 ARROWHEAD RAIN SCREEN			
Standard	Test	Test Standard	Result
ASTM E283	Air Leakage of Test Buck (without panel system installed)	0.11 cfm/ft <sup>2</sup> min. 0.13 cfm/ft <sup>2</sup> 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 <sup>2</sup>	PASS
AAMA 501.1	Dynamic Water Penetration	3.20 ft <sup>2</sup>	PASS
ASTM E330	Uniform Load Deflection and Uniform Load Structural	L/175 of Stiffener Length	PASS

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

## 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 per Fairview architectural approval.



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 01/06/2022. In the event more information is required please contact the Fairview office on 860-242-2711 or email: [helpdesk@fairview-na.com](mailto:helpdesk@fairview-na.com)

Project: The Parker, Alexandria, VA

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