

TECHNICAL DATA SHEET

Vitrabond® FR Aluminum Composite Material

METAL COMPOSITE MATERIAL COMPOSITION	
Front Coating Coil-Coated AAMA 2605 PVDF Coating	
Front Skin	3003 H14 Aluminum
Core	FR Core (Min. 70% mineral fill by weight)
Rear Skin	3003 H14 Aluminum, Chromate Conversion Coating

METAL COMPOSITE	METAL COMPOSITE MATERIAL COMPOSITION	
Front Coating Coil-Coated AAMA 2605 PVDF Coating		
Front Skin	3003 H14 Aluminum	
Core	FR Core (Min. 70% mineral fill by weight)	
Rear Skin	in 3003 H14 Aluminum, Chromate Conversion Coating	

PROPERTIES			
Standard	Descriptions	Test	Test Result
ASTM E136	Fire Performance of 3003 Aluminum	ΔT< 86°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

VITRABOND® FR LEED DATA		
1/2 Pre-Consumer + Post-Consumer Recycled Content		
Vitrabond FR 4mm	12.75%	

IMPACT RESIS	TANCE		
Standard	Descriptions	Test	Test Result
ANSI FM4473	Severe Hail Exposure Test	PASS/FAIL	PASS

SHEET SIZES	
Widths	62" 49.2" 39.37" Inquire for custom width availability
Lengths	240" max.
Thicknesses	4mm 6mm (<i>Max. 39.37" wid</i> e)

THERMAL PERFORMANCE		
Standard	Descriptions	Test
ASTM D696 Coefficient of Linear Expansion 13.8x10^-6 in/in/°F (Aluminum)		

PRODUCT WEIGHT	
Vitrabond 4mm FR	1.5 lbs / ft ²
Vitrabond 6mm FR	2.2 lbs / ft ²

BOND INTEGRITY			
Standard	Descriptions	Test	Test Result
ASTM C297	Flatwise Tensile Strength	>400 psi [2.76 MPa]	PASS
ASTM D1781	Climbing Drum Peel Test	>22.5 in-Ib/in [100 mm- N/mm]	PASS
ASTM D1002	Peak Shear Strength	>515 psi [3.55 MPa]	PASS

PRODUCT TOLERANCES		
Width	± 0.079" (2.0 mm)	
Length	± 0.157" (4.0 mm)	
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 other imperfections in accordance with 3rd party verified QC program.		

FIRE PERFORMANCE		
Standard Descriptions Test Test Resu		Test Result
ASTM E84 Flame Spread <25 PASS		PASS
ASTM E84 Smoke Development <450 PASS		PASS
NFPA 285 Fire Propagation Characteristics PASS/FAIL PASS		PASS
CAN/ULC - S134 Fire Test of Exterior Wall Assemblies PASS/FAIL PASS		PASS

VITRABOND FR WARRANTIES	
Product Warranty	Up to 20 years
Finish Warranty	Up to 30 years

AAMA 2605 STANDARD PVDF COATING			
Standard	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 Hu- midity @ 95°F	Passes 4000 hrs.
ASTM D2244	Exterior Exposure	10 years @ 45° South Florida	PASS - Max. 5 fade
ASTM D2247	Water Resistance	100% Relative Hu- midity @ 95°F	No #8 blisters
ASTM D2794	Reverse Impact	1.5 x metal NOMINAL 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 Coat- ing Flexibility	T - Bend	0 - 2 T - Bend, No pick off
ASTM D4214	Chalk Resistance	10 years @ 45° South Florida	Pass - Max. 8 Chalk



DrJ TECHNICAL EVALUATION REPORT



Rev. Date: 10/13/2025

Access the most recent Vitrabond Technical Evaluation report by DrJ Engineering by scanning the QR code.



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