

SYSTEM OVERVIEW

Compatible Materials	4mm FR Core Metal Composite Material
Aluminum Alloy	Extrusions & Clips: 6063-T6
Fabrication Method	Shop fabricated CNC Router recommended
Panel Assembly	Double V-Groove Rivetless Panels
Installation Methods	Clip Installation Grid Installation RapidWrapCI [®] (Uses Grid Installation)

ARROWHEAD[®] LEED DATA

½ Pre-Consumer + Post-Consumer Recycled Content

Arrowhead Extrusions	Up to 44.5%
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PANEL SIZES

Max. Recommended Panel Size	60" x 96" (Larger sizes may require additional handling)
Typical Stiffener Spacing	24" o.c. (Note: Engineered per project)

DrJ TECHNICAL EVALUATION REPORT



TER 2006-02

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



CHEMICAL COMPOSITION

Standard	Element	Content
ASTM B221	Aluminum (Al)	97.5% - 99.3%
ASTM B221	Magnesium (Mg)	0.45% - 0.90%
ASTM B221	Silicon (Si)	0.20% - 0.60%
ASTM B221	Iron (Fe)	0.00% - 0.35%
ASTM B221	Copper (Cu)	0.00% - 0.10%
ASTM B221	Manganese (Mn)	0.00% - 0.10%
ASTM B221	Chromium (Cr)	0.00% - 0.10%
ASTM B221	Zinc (Zn)	0.00% - 0.10%
ASTM B221	Titanium (Ti)	0.00% - 0.10%
ASTM B221	Other	0.05% - 0.15%

AAMA 508 PRESSURE EQUALIZED RAIN SCREEN

Standard	Test	Test Standard	Result
ASTM E238	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	PASS
ASTM E1233	Cyclic Static Air Pressure Differential (pressure cycling)	Cycle Pressure Difference 12.5 psf max.	PASS
ASTM E331	Static Water Penetration	3.20 ft ²	PASS
ASTM 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

AAMA 509 DRAINED AND BACK VENTILATED RAIN SCREEN

Standard	Test	Result
ASTM E238	Air Leakage of Test Buck (without panel system installed)	V1
ASTM E331	Static Water Penetration	W1
ASTM 501.1	Dynamic Water Penetration	

THERMAL PERFORMANCE

Standard	Descriptions	Test
ASTM D696	Coefficient of Linear Expansion	13.8 x 10 ⁻⁶ in/in/°F (Aluminum)

FIRE PERFORMANCE

Standard	Descriptions	Test	Result
ASTM E136	Fire Performance of Aluminum	ΔT < 86°F	Non-Combustible
NFPA 285	Fire Propagation Characteristics	PASS/FAIL	PASS

MECHANICAL PROPERTIES

Standard	Property	Data
ASTM B221	Elastic (Young's, Tensile) Modulus	9.9 x 10 ⁶ psi
ASTM B221	Elongation at Break	11%
ASTM B221	Fatigue Strength	10 x 10 ³ psi
ASTM B221	Poisson's Ratio	0.33
ASTM B221	Shear Modulus	3.7 x 10 ⁶ psi
ASTM B221	Shear Strength	22 x 10 ³ psi
ASTM B221	Tensile Strength: Ultimate (UTS)	35 x 10 ³ psi
ASTM B221	Tensile Strength: Yield (Proof)	30 x 10 ³ psi

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