

STRUCTURAL PERFORMANCE TESTING SUMMARY DATA



Alfred FR Metal Composite Material 4mm

Fire Resistant & Non-Combustible Cladding

Wall Panel Assembly	Alfred FR with ACCU-TRAC DS Pressure Equalized Rainscreen System courtesy of Altech Panel Systems	
Testing Protocols	Florida Building Code / Miami-Dade County Requirements TAS 201-94: Large Missile Impact Test, Level D, Wind Zone 4 TAS 202-94: Uniform Static Air Pressure TAS 203-94: Cyclic Pressure Loading	ASTM Standards ASTM E283 ASTM E330 ASTM E331 ASTM E1996 ASTM E1886
Florida Product Approval	FL 33597	
Panel Size Referenced	120 in wide x 60 in high	
Engineering Evaluation Report Download	Report No.: 514689	

ASTM E330 - Structural Performance

Panel Deflection

Deflection Criteria	Deflection Inches		Deflection (in)		Permanent Set (in)		
			Measured	Allowed Per TAS 202 (L/250)	Measured	Allowed Per TAS 202 (L/720)	
L/360	0.33	Design Pressure	+ 75.0 / psf	0.15	0.48	0.01	0.17
TAS 202 L/250	0.48		- 75.0 / psf	0.10	0.48	< 0.01	0.17
L/240	0.50	Test Pressure	+ 112.5 / psf	0.23	0.48	0.17	0.17
L/180	0.67		- 112.5 / psf	0.17	0.48	0.02	0.17
L/90	1.33						
L/60	2.00						

Perimeter Framing Deflection

Deflection Criteria	Deflection Inches		Deflection (in)		Permanent Set (in)		
			Measured	Allowed Per TAS 202 (L/1333)	Measured	Allowed Per TAS 202 (L/3899)	
TAS 202 L/1333	0.09	Design Pressure	+ 75.0 / psf	0.01	0.09	0.01	0.03
L/720	0.17		- 75.0 / psf	0.02	0.09	< 0.01	0.03
L/360	0.33	Test Pressure	+ 112.5 / psf	0.01	N/A	< 0.01	0.03
L/240	0.50		- 112.5 / psf	0.12	N/A	< 0.01	0.03
L/175	0.69						

ASTM 283 - Air Infiltration

	Results	Allowed per TAS 202
Air Leakage: 1.57 psf (25 mph)	0.02 cfm / ft ² (0.10 L/s/m ²)	0.06 cfm / ft ² (0.30 L/s/m ²)
Air Leakage: 6.27 psf (50 mph)	0.04 cfm / ft ² (0.20 L/s/m ²)	0.06 cfm / ft ² (0.30 L/s/m ²)

ASTM E331 - Water Penetration

	Results	Allowed per TAS 202
20 psf: 15% of Positive Design Pressure at 960 Pa	Pass	No Leakage