



TECHNICAL BULLETIN

Issue Date : September 25, 2018

No. 02-409-18

Air and Water Infiltration Wave (Floating & Fixed)

On September 21, 2018, McElroy Metal, Inc. tested its Wave (Floating & Fixed) Wall Panel for air leakage and water penetration.

TEST METHODS:

Air Leakage: ASTM E283-91, “Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen”

Water Penetration: ASTM E331-86 (Modified), “Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference”

TEST SPECIMEN:

McElroy Metal, Inc. 24 Ga. 16 in. wide Wave (Floating & Fixed) Wall Panel. Panels were attached intermediate supports using #10-16 x 1” pancake head fasteners at 4’-0” spacing. A 3/16” bead of field applied Sikalastomer 511 butyl sealant was applied in the sidejoint prior to panel engagement.

TEST RESULTS:

Specimen	Air Infiltration			Water Penetration (Horizontal & Vertical)			
	Static Pressure Differential (psf)	Air Infiltration rate (cfm/lf)	Air Infiltration rate (cfm/sf)	Static Pressure Differential (psf)	Rate (gal./hr/sf)	Test Duration (min)	Water Infiltration
Wave (Floating) 16 in. 24* Ga.	1.57	0.0133	0.010	12.00	5	15	None
Wave (Floating) 16 in. 24* Ga.	6.24	0.0267	0.020	24.00	5	15	None
Wave (Fixed) 16 in. 24* Ga.	1.57	0.005	0.004	12.00	5	15	None
Wave (Fixed) 16 in. 24* Ga.	6.24	0.010	0.008	20.00	5	15	None

Test Report No. : T267-18 (Wave Floating)

Dated : September 21, 2018

Test Report No. : T268-18 (Wave Fixed)

Dated : September 21, 2018

*Test results are valid for heavier gauges or thicknesses.

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