



TECHNICAL BULLETIN

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Air and Water Infiltration R-Panel

On October 15, 1999, McElroy Metal, Inc. tested its R- Panel for air leakage and water penetration.

TEST METHODS:

Air Leakage: ASTM E1680-95, "Rate of Air Leakage Through Exterior Metal Roof Panel Systems"

Water Penetration: ASTM E1646-95, "Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference"

TEST SPECIMEN:

McElroy Metal, Inc. 26 Ga. R-Panel Roof with 1" x 1/8" Tape Sealer at sidelaps. Panels were attached to purlins using #12-14 x 1-1/4 ZAC fasteners. Sidelaps were fastened at 20" OC with 1/4-14 Lap ZAC fasteners.

TEST RESULTS:

Specimen	Air Infiltration			Water Penetration			
	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
R-Panel 26 Ga.	-6.24	0.011	0.004	12.0	5	15	None
R-Panel 26 Ga.	+6.24	0.007	0.002				
R-Panel 26 Ga.	-1.57	0.007	0.002				
R-Panel 26 Ga.	+1.57	0.004	0.001				

Test Report No. : T211-99

Dated : October 15, 1999

CORPORATE OFFICE
SHREVEPORT, LOUISIANA