



TECHNICAL BULLETIN

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Air and Water Infiltration Maxima

On August 11, 1997, McElroy Metal, Inc. tested its Maxima Roof 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. 24 Ga. Maxima 216 Roof Panel with factory applied sealant at sidelaps. Panels were attached to purlins using clips at 3'-4" on center. The panels were mechanically seamed to 90 degrees.

TEST RESULTS:

*Results are extrapolated to different panel widths.

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
Maxima 216 24** Ga.	-1.57	0.007	0.005	12.0	5	15	None
Maxima 216 24** Ga.	-12.00	0.021	0.016				
*Maxima 218 24** Ga.	-1.57	0.007	0.005	12.0	5	15	None
*Maxima 218 24** Ga.	-12.00	0.021	0.014				
*Maxima 318 24** Ga.	-1.57	0.007	0.005	12.0	5	15	None
*Maxima 318 24** Ga.	-12.00	0.021	0.014				
*Maxima 324 24** Ga.	-1.57	0.007	0.004	12.0	5	15	None
*Maxima 324 24** Ga.	-12.00	0.021	0.011				

Test Report No. : 25919 Dated : August 11, 1997

**Test results are valid for heavier gauges and thicknesses.

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