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TECHNICAL BULLETIN

Issue Date : September 29, 2010 **No. 01-313-10**

Air and Water Infiltration
Maxima 0.032" Aluminum

On August 19, 2010, McElroy Metal, Inc. tested its Maxima 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. 0.032 Aluminum 18 in. wide Maxima Roof Panels were attached to purlins with Low Floating panel clips using (2) #1/4-14 x 1 1/4" hex head self drilling fasteners per clip. Factory applied sealant was used in the sidelap. The seam was seamed to 90 degrees.

TEST RESULTS: *Results are extrapolated to different panel widths.

	Air Infiltration			Water Penetration			
Specimen	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 ADV *16" 24** Ga.	+6.24	0.009	0.007	6.24	5	15	None
Maxima ADV *16" 24** Ga.	+12.0	0.0024	0.0018	12.00	5	15	None
Maxima ADV *16" 24** Ga.	-6.24	0.0048	0.0036				
Maxima ADV *16" 24** Ga.	-12.0	0.0048	0.0036				
Maxima ADV 18" 24** Ga.	+6.24	0.012	0.008	6.24	5	15	None
Maxima ADV 18" 24** Ga.	+1.57	0.003	0.002	12.00	5	15	None
Maxima ADV 18" 24** Ga.	-6.24	0.006	0.004				
Maxima ADV 18" 24** Ga.	-1.57	0.006	0.004				

Test Report No. : T281-10 Dated : August 23, 2010

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