



TECHNICAL BULLETIN

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Air and Water Infiltration Maxima ADV 24 Ga.

On April 21, 2005, McElroy Metal, Inc. tested its Maxima ADV 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. 16 in. wide Maxima ADV Roof Panels were attached to purlins with Low Floating panel clips using (2) #12-14 x 1 1/4" hex head self drilling fasteners per clip. 3/32" x 3/8" butyl tape sealant was used in the sidelap and under each clip. The seam was seamed to 180 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 ADV 16" 24 Ga.	+6.24	0.002	0.001	12.00	5	15	None
Maxima ADV 16" 24 Ga.	+12.0	0.007	0.006				
Maxima ADV 16" 24 Ga.	-6.24	0.004	0.003				
Maxima ADV 16" 24 Ga.	-12.0	0.015	0.011				
Maxima ADV *18" 24 Ga.	+6.24	0.002	0.001	12.00	5	15	None
Maxima ADV *18" 24 Ga.	+1.57	0.007	0.005				
Maxima ADV *18" 24 Ga.	-6.24	0.004	0.003				
Maxima ADV *18" 24 Ga.	-1.57	0.015	0.010				

Test Report No. : T147-05

Dated : April 25, 2005

CORPORATE OFFICE
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