



TECHNICAL BULLETIN

Issue Date : January 10, 2000**Revised: February 11, 2013****No. 02-104-00**

Air and Water Infiltration MasterLok-90 w/endlap

On July 31, 1992, McElroy Metal, Inc. tested its MasterLok-90 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. MasterLok-90 Roof Panel with factory applied sealant at sidelaps. Panels were attached to purlins using panel clips at 5'-0" and 4'-7" spacing. Panels were installed at 1/4:12 slope. The specimen included an endlap condition.

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
ML-90 24" 24** Ga.	-6.24	0.10	0.05	12.0	5	15	None
ML-90 24" 24** Ga.	-1.57	0.04	0.02				
ML-90 *18" 24** Ga.	-6.24	0.10	0.067	12.0	5	15	None
ML-90 *18" 24** Ga.	-1.57	0.04	0.027				

Test Report No. : 18510

Dated : July 31, 1992

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

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