



TECHNICAL BULLETIN

Issue Date : January 10, 2000**Revised: February 5, 2013****No. 01-102-00**

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

*Test results are valid for heavier gauges or thicknesses.

**CORPORATE OFFICE
SHREVEPORT, LOUISIANA**

BOSSIER CITY, LA
CLINTON, IL

PEACHTREE CITY, GA
MARSHALL, MI

WINCHESTER, VA
ADELANTO, CA

LEWISPORT, KY
MAUSTON, WI

ASHBURN, GA
MERKEL, TX

SUNNYVALE, TX
HOUSTON, TX