



Engineering Technical Bulletin

No. 004-11-02

November 13, 2002

R-Panel Air Leakage and Water Penetration Test Data

PRODUCT

MBCI R-Panel 24-ga. with stitch screws at 20" o/c, and continuous 1/2" x 3/32" tape sealer at panel side-lap.

TEST PROCEDURES

ASTM E 1680-95: Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems.

ASTM E 1646-95: Standard Test Method Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.

TEST RESULTS

Air Leakage was conducted with a uniform static air pressure differential of +/- 1.57 *psf* & +/- 6.24 *psf*. Water Penetration was conducted with a uniform static air pressure differential of 20.00 *psf*.

Water Penetration Test Results: No uncontrollable water leakage at 20 *psf* when five gallons per hour of water were sprayed per square foot of roof area.

The following are the test results:

SUMMARY

Profile	ASTM E 1680-95 Air Leakage		ASTM E 1646-95 Water Penetration	
	Pressure Differential	Leakage Rate	Pressure Differential	Infiltration Rate
R-Panel 24 Ga.	+ 1.57 <i>psf</i>	0.005 <i>cfm / sq. ft.</i>	20 <i>psf</i>	None
R-Panel 24 Ga.	- 1.57 <i>psf</i>	0.004 <i>cfm / sq. ft.</i>	20 <i>psf</i>	None
R-Panel 24 Ga.	+/- 6.24 <i>psf</i>	0.006 <i>cfm / sq. ft.</i>	20 <i>psf</i>	None

Copies of the independent test laboratory reports are available upon request.

Test Report No. T250-02 Dated: 9/16/2002