Engineering Technical Bulletin

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EM eco-FICIENT® Insulated R Panel Air Leakage and Water Penetration Test Data

PRODUCT

EM eco-FICIENT® Insulated R Panel with non-skinning butyl modified sealant located in the tongue and groove side lap and ½" tape seal located in the high rib 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 +/- 6.24 *psf* & +/- 12.00 *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 extrapolated to the different widths to which they apply.

SUMMARY

Profile	ASTM E 1680-95 Air Leakage		ASTM E 1646-95 Water Penetration	
	Pressure Differential	Leakage Rate	Pressure Differential	Infiltration Rate
36" EM eco-FICIENT® Wall Panel	+/-6.24 *psf*	0.0015 *cfm / sq.ft.*	20 *psf*	None
36" EM eco-FICIENT® Wall Panel	+/- 12.00 *psf*	0.0037 *cfm / sq.ft.*	*20 psf*	None

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

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