Engineering Technical Bulletin

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Air Leakage and Water Penetration Test Data

PRODUCT
MBCI **Ultra-Dek®** Standing Seam Roof System.

TEST PROCEDURES
1. ASTM E 1680-95: Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems
2. 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 6.24 PSF. & 12.00 psf.

Water Penetration Test Results: No uncontrollable water leakage at 6.24 psf or 12 PSF when five gallons per hour of water were sprayed per square foot of roof area.

The following is the test results extrapolated to the different widths to which it applies.

SUMMARY

24 Ga. Double-Lok	ASTM E 1680-95 Air Leakage		ASTM E 1646-95 Water Penetration	
	Pressure Differential	Leakage Rate	Pressure Differential	Infiltration Rate
24” Wide	+/- 6.24 psf	0.007 CFM/sq.ft.	6.24 psf	None
18” Wide	+/- 6.24 psf	0.010 CFM/sq.ft.	6.24 psf	None
12” Wide	+/- 6.24 psf	0.014 CFM/sq.ft.	6.24 psf	None
24” Wide	+/- 12.00 psf	0.014 CFM/sq.ft.	12.00 psf	None
18” Wide	+/- 12.00 psf	0.019 CFM/sq.ft.	12.00 psf	None
12” Wide	+/- 12.00 psf	0.028 CFM/sq.ft.	12.00 psf	None

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

Test Report # T117-97 Dated 5/21/97