



# TECHNICAL BULLETIN

Issue Date : October 24, 2006

No. 01-272-06

## Air and Water Infiltration MasterLok FS 24 Ga.

On October 6, 2006, McElroy Metal, Inc. tested its MasterLok FS 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. 24 Ga. 24 in. wide MasterLok FS Roof Panels were attached to purlins with MasterLok FS Low Floating panel clips w/ sealant using (2) #12-14 x 1 1/4" hex head self drilling fasteners per clip. 1/4" bead butyl factory installed sealant was used in the sidelap.

### 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
MasterLok FS 24" 24 Ga.	+6.24	0.016	0.008	12.00	5	15	None
MasterLok FS 24" 24 Ga.	+1.57	0.000	0.000				
MasterLok FS 24" 24 Ga.	-6.24	0.020	0.010				
MasterLok FS 24" 24 Ga.	-1.57	0.008	0.004				
MasterLok FS *18" 24 Ga.	+6.24	0.016	0.011				
MasterLok FS *18" 24 Ga.	+1.57	0.000	0.000				
MasterLok FS *18" 24 Ga.	-6.24	0.020	0.013				
MasterLok FS *18" 24 Ga.	-1.57	0.008	0.005				

Test Report No. : T229-06

Dated : October 9, 2006

CORPORATE OFFICE  
SHREVEPORT, LOUISIANA