

R-Mer® Span All-Weather Testing

R-Mer Span is subjected to testing meant to simulate the environmental demands a 20 to 30 year old roof can be expected to experience in its lifetime.



Normal Rainfall Event ASTM E1646

Pressure Result
5 gal./hr. per S.F. and Static

No Leakage

Pressure of 20.0 psf for 15 minutes



High Wind and Rainfall Event AAMA 501.1 and TAS 100

Wind Speed Simulated Rainfall

35 mph	8.8 in./hr.
70 mph	8.8 in./hr.
90 mph	8.8 in./hr.
110 mph	8.8 in./hr.

**No Panel
Movement or
Water Infiltration
at any Wind Speed**



Snow and Ice Build-Up/Melt, Flooding Event ASTM E 2140 and TAS 114

Test	Submersion Time	Results
ASTM E 2140	6 hours	No Leakage
TAS 114	7 days	No Leakage

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Features

Normal Rainfall Event

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

Benefits

- ASTM E 1646 testing offers a gauge to confirm how moisture resistant a panel seam will be in high wind conditions. The key is testing to 20 psf of pressure is a realistic and common pressure roofs will experience. Most manufacturers only test to 15 psf. or lower.
- Test apparatus shown creates constant pressure with rain to simulate normal rainfall event.

High Winds and Rainfall Event

AAMA 501.1: Standard Test Method for Metal Curtain Walls for Water Penetration using Dynamic Pressure

TAS 100-95: Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems

- Specifically developed to gauge a metal roofing system's ability to remain weathertight under adverse weather conditions and wind-driven moisture. System details such as valleys are incorporated into the testing specimen to confirm total performance of the roof system.
- Test apparatus shown uses a turbine to drive simulated rain up to speeds of 110 mph.

Snow and Ice Build-Up/Melt, Flooding Event

AAMA E 2140: Standard Test Method for Water Penetration of Metal Roof Panel Systems by Static Water Pressure Head

- ASTM E 2140 & TAS 114-95 testing was specifically developed to gauge a metal roofing system's ability to withstand winter weather and flash flooding. What is an acceptable degree of performance or system leakage? This test confirms that the level of acceptable failure is absolutely zero. This is the only testing that simulates seam submersion under snow melt. This test is mandatory to measure true roof performance in northern climates.

- Test apparatus shown submerges panel seams under 6" of water.

TAS 114-95: Test Procedure for Susceptibility to Leakage of Discontinuous Roof Systems

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