

HYGROTHERMAL SNAPSHOT

Energy Wall: TJI and Truss Wall Construction

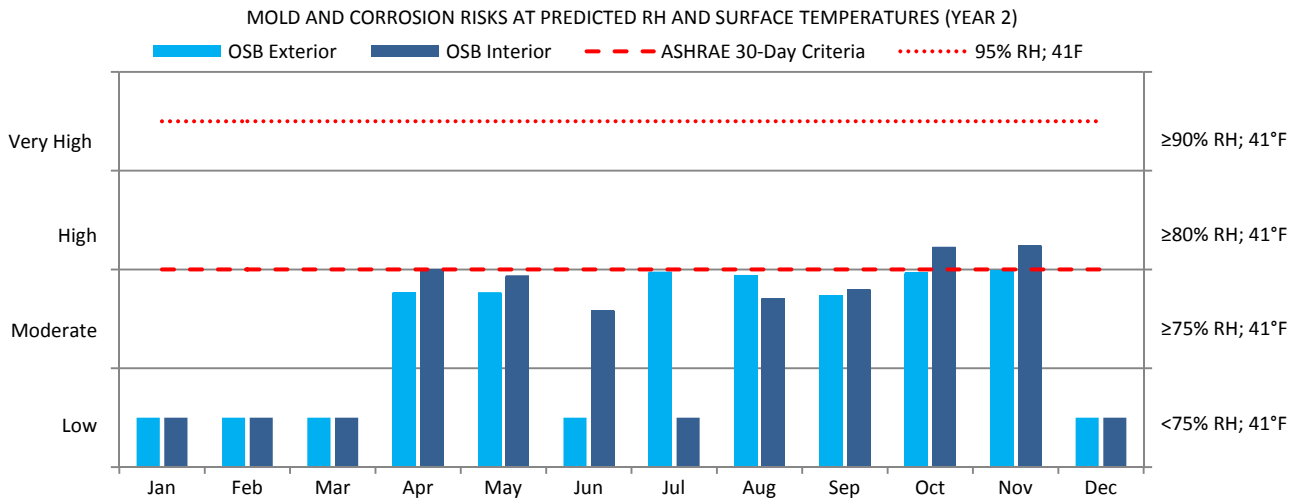
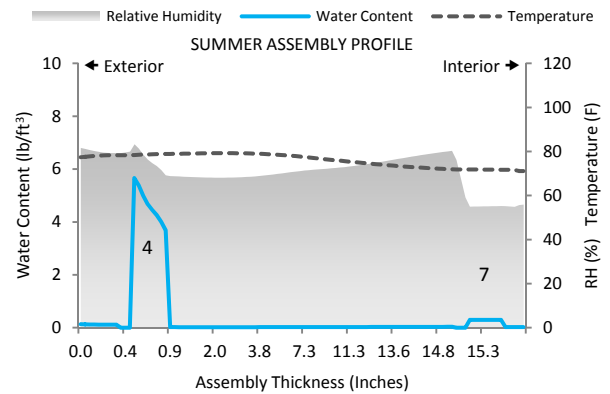
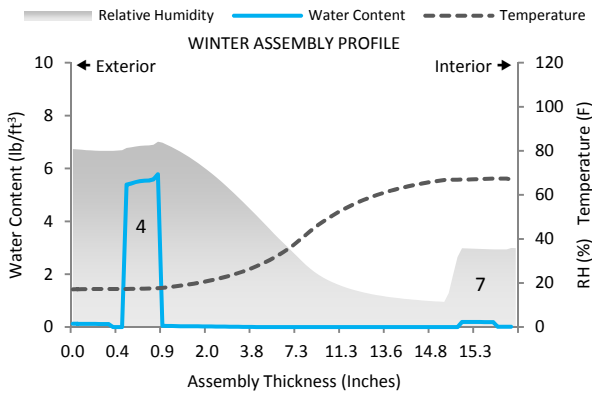
Madison, Wisconsin | 43.8°N 89.20°W | Elev. 866 ft | -6 UTC

RATING

Fail



| ASSEMBLY COMPONENTS | | | PARAMETERS | | CLIMATE NORMALS | |
|---------------------|----------------------------|----------|---|----------------|----------------------------|-----------------|
| 1 | Metal Panel | 0.375 in | Test Duration | 2 Yrs | Temp. Daily Max / Min | 55.9°F / 36.8°F |
| 2 | Rainscreen Air Space | 0.375 in | Interior Moisture | Low | RH Daily Max / Min | 84% / 61% |
| 3 | Housewrap WRB | 0.008 in | Interior Temperature | 69.8°F ± 1.8°F | Rainfall | 34.5.4 in |
| 4 | OSB Sheathing | 0.492 in | Interior Humidity | 45% ± 15% | Snowfall | 50.9 in |
| 5 | Fiberglass Batt Insulation | 14 in | Orientation / Inclination | S / 90° | Wind Speed | 8.4 mph |
| 6 | Polyethylene VR | 0.039 in | Exterior Coating | - | Wind Direction | 190° |
| 7 | Interior Gypsum Board | 0.492 in | Interior Coating | - | Station Air Pressure | 29.07 in |
| 8 | Interior Paint & Primer | 0.003 in | Rain Exposure / Deposition ¹ | 1 / 0.5 | Heating Degree Days (65 F) | 7,333 |
| | | | Rain Penetration ¹ (▶) | 1% | Cooling Degree Days (65 F) | 568 |
| | | | Rainscreen / ACH | Yes / 40 | Modeled Climate Data | WUFI |



PERFORMANCE RATINGS

Ratings are based on ASHRAE Standard 160¹. Resistant materials are evaluated based on hourly 30-day running averages at ≥95% RH, 41°F.

P = Pass; Criteria met

C = Conditional; Criteria compliance is uncertain

F = Fail; Criteria not met for a 30-day running average

CF = Critical Fail; Criteria not met at multiple 30-day running averages

1. ASHRAE Standard 160: Criteria for Moisture-Control Design Analysis in Buildings.

ABOUT THIS REPORT

These findings are offered for informational purposes only and are not intended as a comprehensive hygrothermal analysis. Design considerations should not rely on this report as the sole means for predicting assembly performance. Uncertainties and limitations inherent to hygrothermal modeling apply to these findings². For more information, visit our website at www.built-environments.com.

2. ASTM MNL 18: Moisture Control in Buildings.