HYGROTHERMAL SNAPSHOT

Energy Wall: EIFS on Structural Insulated Panels (SIPs)

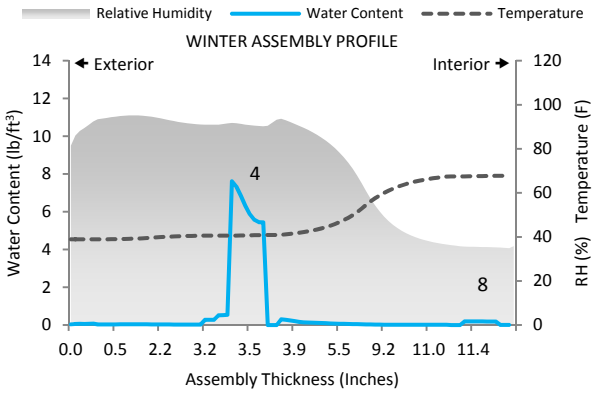
Toronto, Ontario | 43.66°N 79.63°W | Elev. 371 ft | -5 UTC

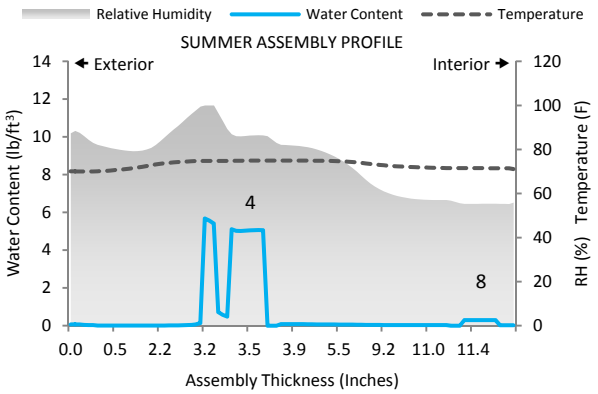
RATING
Critical Fail
CF

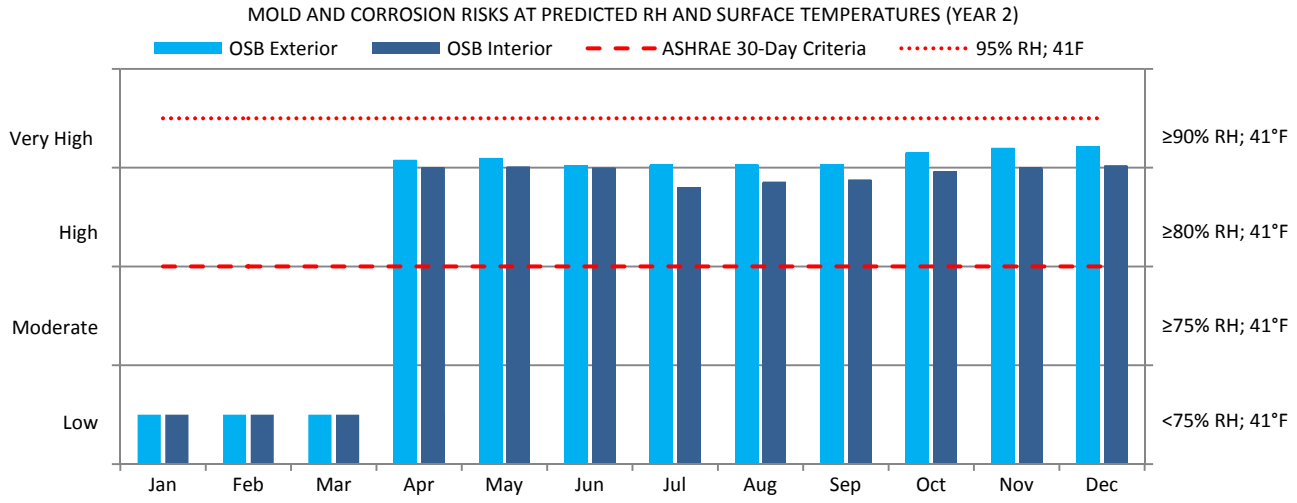
ASSEMBLY COMPONENTS		
1	EIFS Base & Finish	0.125 in
2	Expanded Polystyrene	3 in
3	Liquid-Applied WRB	0.008 in
4	OSB Sheathing	0.492 in
5	Foil Facing on SIP Panel	0.004 in
6	Closed Cell Spray Foam SIP	7 in
7	Foil Facing on SIP Panel	0.004 in
8	Interior Gypsum Board	0.492 in
9	Interior Paint & Primer	0.003 in

PARAMETERS	
Test Duration	2 Yrs
Interior Moisture	Low
Interior Temperature	69.8°F ± 1.8°F
Interior Humidity	45% ± 15%
Orientation / Inclination	S / 90°
Exterior Coating	-
Interior Coating	-
Rain Exposure / Deposition[1]	1 / 0.5
Rain Penetration[1] (▶)	1%
Rainscreen / ACH	No / 0

CLIMATE NORMALS	
Temp. Daily Max / Min	54.9°F / 42.1°F
RH Daily Max / Min	81% / 62%
Rainfall	27.9 in
Snowfall	52.4 in
Wind Speed	9.1 mph
Wind Direction	240°
Station Air Pressure	29.2 in
Heating Degree Days (65 F)	6,617
Cooling Degree Days (65 F)	544
Modeled Climate Data	WUFI







PERFORMANCE RATINGS

Ratings are based on ASHRAE Standard 160[1]. 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

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 findings[2]. For more information, visit our website at www.built-environments.com.

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

2. ASTM MNL 18: Moisture Control in Buildings.