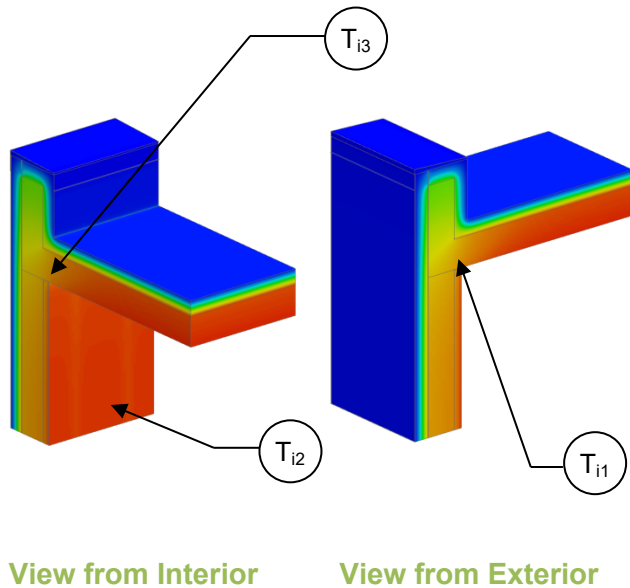


Detail 7.5.2

Exterior Insulated Concrete Drained EIFS Wall Assembly – Insulated Concrete Parapet & Slab Intersection



Thermal Performance Indicators

| | | |
|--|----------------------|--|
| Assembly 1D (Nominal) R-Value | R_{1D} | R-3.0 (0.53 RSI) + exterior insulation |
| Transmittance / Resistance without Anomaly | U_r, R_r, U_w, R_w | “clear wall” U- and R-value: r = roof w = wall |
| Transmittance / Resistance | U, R | U- and R-values for overall assembly |
| Surface Temperature Index ¹ | T_i | 0 = exterior temperature 1 = interior temperature |
| Linear Transmittance | ψ | Incremental increase in transmittance per linear length of parapet |

¹Assumptions and limitations for surface temperatures identified in ASHRAE 1365-RP

Nominal (1D) vs. Assembly Performance Indicators

Base Assembly – Wall

| Exterior Insulation 1D R-Value (RSI) | R_{1D} ft ² ·hr·°F / Btu (m ² K / W) | R_w ft ² ·hr·°F / Btu (m ² K / W) | U_w Btu/ft ² ·hr·°F (W/m ² K) |
|--------------------------------------|--|---|---|
| R-15 (2.64) | R-18.0 (3.17) | R-17.6 (3.10) | 0.057 (0.32) |

Base Assembly - Roof

| Roof Exterior Insulation 1D R-Value (RSI) | R_r ft ² hr °F / Btu (m ² K / W) | U_r Btu/ft ² ·hr·°F (W/m ² K) |
|---|--|---|
| R-20 (3.52) | R-21.9 (3.86) | 0.046 (0.26) |

Parapet Linear Transmittance

| Exterior Insulation 1D R-Value (RSI) | R ft ² ·hr·°F / Btu (m ² K / W) | U Btu/ft ² ·hr·°F (W/m ² K) | ψ Btu/ft hr °F (W/m K) |
|--------------------------------------|---|---|-----------------------------------|
| R-15 (2.64) | R-14.5 (2.55) | 0.069 (0.39) | 0.146 (0.253) |

Temperature Indices

| | | |
|----------|------|---|
| T_{i1} | 0.83 | Min T on concrete interior surface, at concrete roof slab intersection |
| T_{i2} | 0.89 | Max T on concrete interior surface, at mid-wall |
| T_{i3} | 0.87 | Min T on concrete ceiling, at drywall intersection, exposed to interior air |