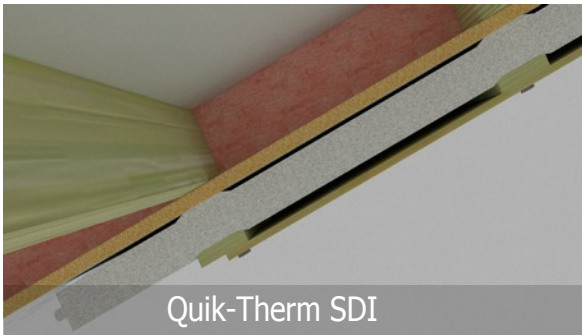




Quik-Therm Connect

Quik-Therm T&G Connect (Connect) and Quik-Therm Solar Dry (SDI) are high performance insulation technologies that are ideal for cement board cladding applications. Both Connect and SDI incorporate Tongue & Groove (T&G) Connections and are manufactured from superior closed-cell, lightweight and resilient expanded polystyrene (EPS) with advanced metallic polymer facers.

For detailed engineered instructions please refer to "Guide to Attaching Exterior Wall Coverings through Foam Sheathing to Wood or Steel Wall Framing" by the Foam Sheathing Coalition (FSC) found at: <http://www.nationalgypsum.com/ng/file/FSCdoc.pdf>



Quik-Therm SDI

Connect & SDI Advantages

- REDUCE ON SITE MATERIAL AND LABOUR COSTS. Install in less time than conventional rigid foam insulation and strapping (furring) methods.
- ENVIRONMENTALLY RESPONSIBLE. No thermal drift - R-value will remain stable over entire service life. Contain no dyes, formaldehyde, or ozone depleting blowing agents. May contain up to 15% recycled content.
- RUGGED AND DURABLE. Do not easily chip, crack or break.
- EFFECTIVE R-VALUE TESTED. Tested to ASTM C1363 standard by Canadian accredited laboratories. Results are supported by leading building scientists.
- THINNER WALLS / HIGH R-VALUE PERFORMANCE.

Quik-Therm Connect (Connect)

Connect is an all in one insulation and furring system manufactured with Type 1 or Type 2 high density Expanded Polystyrene (EPS). Machined plywood nailing strips/battens are embedded within the insulation panels. The battens are mechanically fastened to wall framing members. In-turn, cement board cladding is mechanically fastened directly to the battens.

Features & Benefits

- High performance insulator with inherent structural integrity. T&G Connect (Connect) has been tested to ASTM E96 and may meet code compliancy as part of an air, vapour and/or radon barrier system.
- STRUCTURE AND INSULATION COMBINED. Panels are 2" to 6" thick X 4' wide X 8' long with 1/2" T & G connections located on the 8' side.
- 3/4" thick X 2 1/2" wide X 8' long battens (nailing strips) are imbedded within the insulation panels. The battens are hermetically sealed in place by metallized polymer facers. Battens are spaced 16" or 24".
- Optional: Connect Air Dry. Includes drying/drainage plane cavity between substrate and insulation (same as Solar Dry).

Failure to install cement board cladding in accordance with applicable building codes and written installation instructions by cement board manufacturers and Quik-Therm Insulation Solutions Inc. may void any or all product warranties.

Quik-Therm Solar Dry (SDI)

Solar Dry is manufactured with Type 2 high density Expanded Polystyrene (EPS). On the inboard (sheathing) side of SDI are drying cavities that occupy ~75% of the surface. These cavities allow walls to drain, dry and disperse moisture.

On the outboard side, furring materials such as wood or steel are mechanically fastened through SDI panels directly to framing members. The location for furring is identified by shallow depressions.

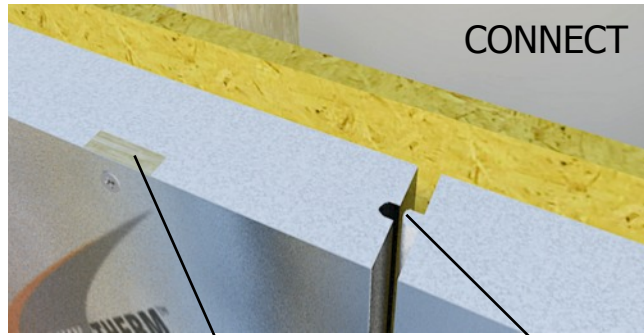
As per 9.27.2.2 "Minimum Protection from Precipitation Ingress", a code compliant rain screen is achieved provided the furring creates a minimum 3/8" (10 mm) between Solar Dry and cement board siding.

Features & Benefits

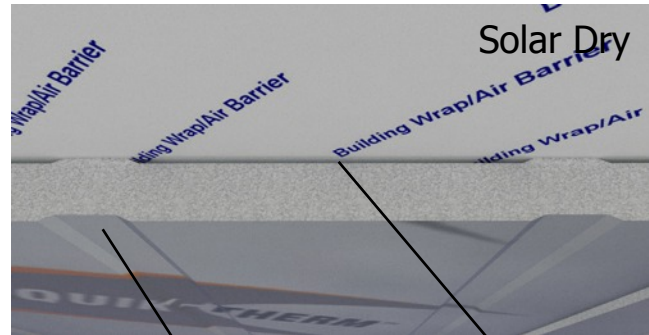
- 4 IN 1 INSULATION SYSTEM - Drying plane, rain screen, exterior weather barrier and high performance insulator.
- NO DOUBLE VAPOUR BARRIER - Inherent drying plane cavities allow SDI walls to breathe through natural exfiltration.
- T & G CONNECTIONS. SDI Panels are 1.5" to 6" thick X 4' wide X 8' long with 1/2" T & G connections located on the 8' side.
- INHERENT RAINSCREEN. Combined furring materials and SDI create a code compliant rain screen.
- SECOND PLANE OF PROTECTION. Prevention of moisture ingress as per 9.27.3.



Thermal Performance & Physical Properties



Plywood battens (nailing strips) allow easy attachment to framing members



Interlocking T&G Connections

3.5" channels every 16" help to pre-align furring over wall studs

3/16" deep x 13" wide channels allow walls to breathe, dry and drain

Important: Quik-Therm Solar Dry and Connect walls should be designed to meet the minimum ratio of outboard to inboard thermal resistance listed in Table 9.25.5.2 of the code. A vapour permeable / air barrier membrane is recommended between exterior sheathings and SDI.

Typical Physical Properties

| Property | SDI | Connect | Test Method |
|---|--------------|--------------|------------------|
| R-Value Testing | Type 1 | Type 1 | ASTM C1363 |
| Nominal Density (pcf) | Type 2 - 1.4 | Type 2 - 1.4 | ASTM D1622-03 |
| Compressive Strength (psi, 10% deformation) | 19.7 | 19.7 | ASTM D1621-04 |
| Water Vapour Transmission (perms) | <1.0 | <1.0 | ASTM E96 |
| Flame Spread | 250 | 250 | CAN/ULC - S102.2 |
| Smoke Developed | 410 | 410 | CAN/ULC - S102.2 |

CCMC (Canadian Construction Materials Center) Listing: Type 2 13457-L.

Quik-Therm SDI & Connect should be covered with a fire-resistant material. Check with local building codes.

ASTM C1363 Effective R-Value Testing & Energy Modelling

ASTM C1363 - ATI / Intertek. Engineering and Energy Modeling - Morrison Hershfield and/or ASHRAE

| Wall Assembly Description | Eff. R-Value |
|---|--------------|
| Quik-Therm Solar Dry (SDI) | |
| Modelled - Drywall, 2x4, empty wood cavity (16" O.C.), 1.5" SDI | 10.75 |
| Modelled - Drywall, 2x4 wood frame (16" O.C.), R-12 fiberglass, 1.5" SDI | 20.55 |
| Modelled - Drywall, 2x6 wood frame (16" O.C.), R-20 fiberglass, 1.5" SDI | 26.55 |
| C1363 - Drywall, 2x4 empty wood cavity (16" O.C.), OSB, 2" SDI | 13.2 |
| C1363 - Drywall, 2x4 wood frame (16" O.C.), R-12 fiberglass, 2" SDI | 22.1 |
| Modelled - Drywall, 2x6 wood frame (16" O.C.), R-20 fiberglass, 2" SDI | 28.3 |
| Modelled - Drywall, steel framing (16" O.C.), R-20 fiberglass, exterior drywall, 2" SDI, cladding | 18.5 |
| Modelled - Drywall, empty steel cavity (16" O.C.), exterior drywall, 4" SDI, cladding | 19.6 |
| Quik-Therm Connect (Connect) | |
| 1363 - Drywall, 2X4 empty wood cavity, OSB, 2" Connect, cement board (Test Purposes Only) | 13.2 |
| 1363 - Drywall, 2X4 empty wood cavity, OSB, 3/8" drainage plane, 3" Connect, cement board | 17 |
| Modelled - Drywall, 2X4 empty wood cavity, OSB, 3" Connect, cement board | 18.2 |
| 1363 - Drywall, 2x4 wood frame, R-12 fiberglass, OSB, 2" Connect, cement board | 22.1 |
| Estimated - Drywall, 2x4 wood frame, R-12 fiberglass, OSB, 3" Connect, cement board | 28 |
| Estimated - Drywall, 2x6 wood frame, R-20 fiberglass, OSB, 3" Connect, cement board | 34 |

NOTE: Substitute mineral wool insulation for fiberglass - add an effective R-1 to the assembly.