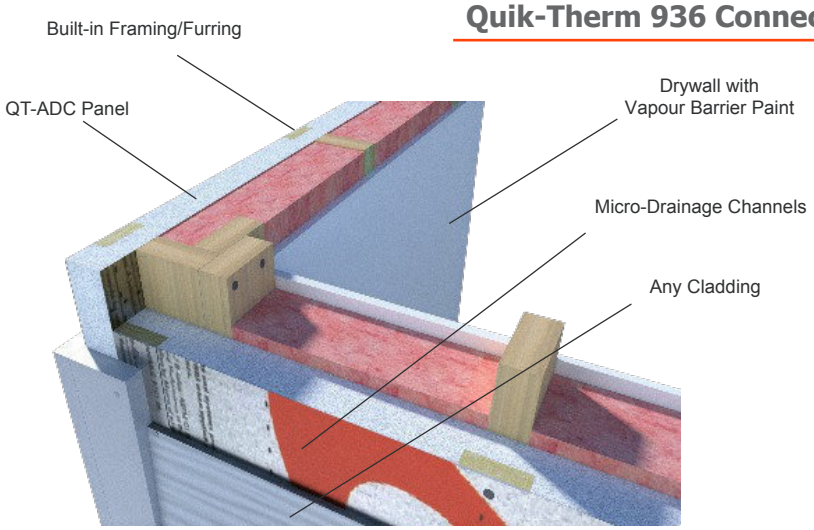
936 Connect

Total Wall Weatherization System

Proudly manufactured in Canada

Technical Overview

Quik-Therm 936 Connect: **Quik-Summary**



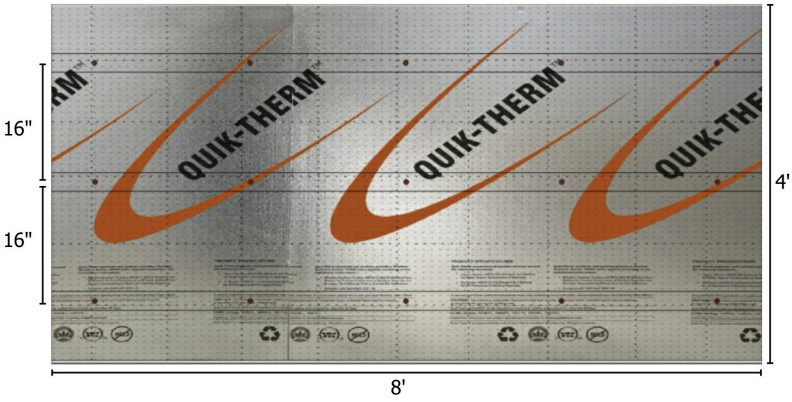
Quik-Therm 936 Connect System utilizes the Quik-Therm Air Dry Connect panels (QT-ADC) a 4' x 8' high compressive strength Type 2 expanded polystyrene (EPS) panel with structural plywood furring strips, 3" wide x ¾" thick, embedded 16" OC -- designed to simplify wall construction. Both sides of the panel are laminated with durable, perforated polymer reflective facers. QT-ADC panels are available in various thicknesses, ranging from 2" to 6".

936 Connect replaces OSB sheathing, house wrap, poly, and strapping -- installing all in one step. 936 Connect is a complete weatherization system that installs faster, reduces material usage, and minimizes labor costs vs. conventional designs.

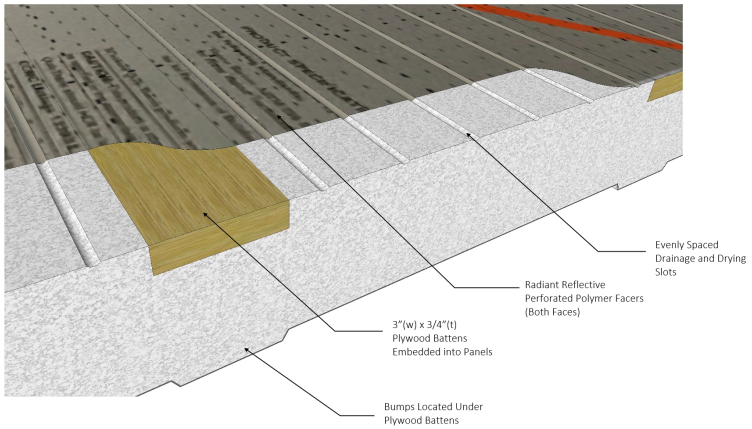
936 Connect outperforms minimum code. By minimizing thermal bridging it offers exceptional energy performance and comfort. 936 achieves an **Effective R-value of 19.9** when installed with a 2x4 stud frame with R12 batt.

Quik-Therm 936 Connect: **Features**

- **No Sheathing Required:** QT-ADC panels are structurally fastened directly to wall framing without the need for OSB sheathing. Panels up to 2.5" thick are installed using 3-1/4" standard framing nails. 3" or thicker require mechanical fastening with screws.
- **Versatile Cladding Options:** QT-ADC panels are engineered to support a wide range of cladding types, including cement board, vinyl siding, stucco, full bed masonry, fully adhered masonry, and metal panels. Designed to handle up to 13 lbs/sqft of dead load -- the system ensures durability and compatibility with virtually any exterior finish.
- **Superior Air Tightness:** Air leaks can reduce energy efficiency by up to 1/3. When installed directly to stud framing and following installation guidelines, QT-ADC panels often achieve air tightness levels less than 0.60 air changes per hour (ACH) during blower door testing -- exceeding the industry's highest standard (Passive House).
- **Code Compliant Vapour Retarder**: The 936 Connect System eliminates the need for poly by using two coats of vapour barrier paint on the interior drywall. This approach reduces outward vapour flow during cold months and adequately restricts interior vapour flow during warmer months, ensuring optimal moisture management in all seasons and climates.
- **Rim Joist Made Easy:** As a result of 936 Connect's superior R- value performance, only R-12 batt is required to meet code in the rim joist. We DON'T recommend spray foaming the rim joist cavities with the 936 Connect System.
- **Micro Drainage Channels:** Raised furring strips and micro channels relieve hydrostatic pressure while promoting drainage and drying between cladding materials and QT-ADC panels. Building wrap is required for stucco applications.
- Installation Guideline Video: https://www.youtube.com/watch?v=A-bm8W1rVT4



This dual efficiency—streamlined installation and superior energy savings—makes 936 Connect an ideal choice for builders seeking cost-effective, high-performance solutions



New Home Builder Rebates

Due to the superior effective R-value and air tightness performance, New Home Builders are eligible for a minimum $2000 rebate and free air tightness testing. Efficiency Rebate Programs are available in all Canadian provinces.

Common 936 Connect Designs & Effective R-Values

936 Connect Thickness	Stud Size	Wall Thickness	Poly, OSB, Sheathing, House Wrap	Batt Nominal R-Value	Attachment Method	Effective R-Value	Climate Zone Recommendation
2”	2x4	6”	Not Required	R-12	Framing Nailer	R-19.9	Zones 5,6,7
2.5”	2x4	6.5”	Not Required	R-12	Framing Nailer	R-22	Zones 5,6,7
2.5”	2x6	8.5”	Not Required	R-20/R-24	Framing Nailer	R-26 to R-28	Zones 5,6,7
4”	2x4	8”	Not Required	R-12	U2 Screws	R-28.3	Zones 5,6,7,8
4”	2x6	10”	Not Required	R-20/R-24	U2 Screws	R-32 to R-34	Zones 5,6,7,8
6” Passive House Standard	2x8	14”	Not Required	R-28/R-32	U2 Screws	R-42 to R-44	Zones 5,6,7,8

- Using generally accepted R-values calculations, listed effective R-value’s are accurate within 3% ±.
- Effective R-value testing to ASTM C1363 results have shown the effective R-value for Quik-Therm wood frame designs are superior to accepted industry calculations.

Testing, Engineering & Modelling

Test Method	Testing & Building Science Agencies
Product Certification: Type 2 Listings: 13457-L, 12425-L	CCMC, Intertek
Type 2 Nominal R-value Testing: ASTM C518	ATI/Intertek
National Building & MBC Code Compliance	Frontenac Engineering, Evoke Engineering, Manitoba Inspection & Technical Servicess
Vapour Transmission Testing: ASTM E96 & E96M	QAI Laboratories, Morrison Hershfield
Air Barrier/Leakage and Puncture Testing: ASTM, E2178-13, E2357, E1186	QAI Laboratories, Morrison Hershfield, Red River College, Evoke Engineering
Structural Wall Testing: ASTM E330M & E331	Red River College
Adhesive Membrane Testing: TAS 1 24-95	QCA Building Envelope
Tape Peel Adhesion Testing: ASTM D330 Method A	3M, Cantech Intertape
Hygrothermal Analysis: Evaluates the effects of moisture and heat on a building structure	Evoke Engineering, Morrison Hershfield
Nail & Screw Withdrawal Testing: CSA-136, Nailing Fastening Schedule	Morrison Hershfield
Fire Testing: CAN/ULC S101	QAI Laboratories
Air Tightness Case Study: Exceeded Passive House Standard - 0.55 ACH	Efficiency Manitoba. Builder received $2,103 rebate.
Facade Fastening Scheduling & Engineering	Morrison Hershfield, LDA Engineering

Hot Box Testing - 936 Connect vs Minimum Code

Winter Testing

- Center of cavity temperature: 936 Connect +9C / Min. Code -2C.
- Interior sheathing temperature: 936 Connect +2C / Min. Code (OSB) -18C.
- Cavity moisture: 936 Connect 10% / Min. Code 18%.

Summer Drying Testing

- At 10% moisture the 936 Connect cavity dried to 0 moisture in 6 days.
- At 18% moisture the Minimum Code cavity dried to 13% moisture in 24 days……and counting.

Air Barriers vs. Vapour Barriers

It is well understood air flow moves up to 100 times more water vapour (moisture) than what diffuses (moves) through building materials. Building an air-tight building enclosure is critical in the mitigation of moisture related issues, especially in Canada’s colder climates. Building airtight is the lowest cost and most cost-effective way to save energy. Air tightness is significantly more important than R-value.

Vapour Permeance Comparison

936 Connect & Vapour Barrier Paint vs. OSB & Poly

Vapour permeability (diffusion) is the rate at which vapour passes through building materials. It is referenced in Perms or nano-grams (ng).The higher the number, the faster a material dries. For walls that incorporate exterior insulation, Building Scientists recommend vapour retarding system’s such as vapour barrier (drywall) paint vs. 6 mil poly.

Product/System	Vapour Permeance
6 Mil Poly: Impermeable. Stops vapour flow in both directions. Walls can’t dry inward.	3.4 ng
Drywall & Vapour Barrier Paint: Minimizes outward vapour flow while enhancing inward drying.	33 ng
OSB & Laminated OSB Sheathing: Blocks air flow. Absorbs and holds moisture. Potential for mildew, mold and rot.	44 ng
936 Connect System: Manages vapour flow. Blocks air flow. Fast drying. Will not support mold, mildew and won’t degrade.	87 ng