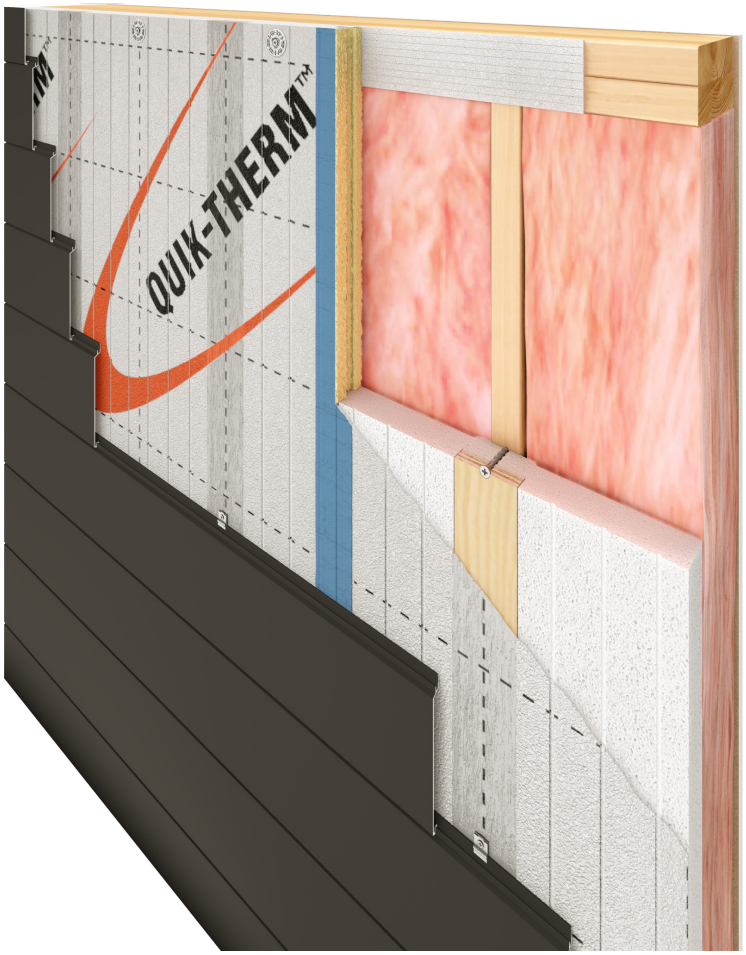
936 CONNECT SYSTEM

TECHNICAL BROCHURE

QUIK-THERM™

Innovative Insulation Solutions



INNOVATIVE ASSEMBLY ROOTED IN BUILDING SCIENCE

NO EXTERIOR SHEATHING
NO HOUSEWRAP
NO INTERIOR POLY

Quik-Therm Insulation Solutions - 1680 Sargent Ave. (Unit #3)
Winnipeg, Manitoba R3H 0C2
T: 1-204-736-3012 / TF: 1-888-735-3012 / E: info@quiktherm.com

SYSTEM DESCRIPTION

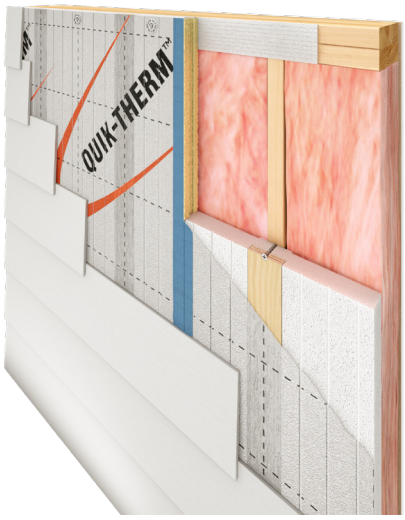
Constructing an air-tight building envelope is critical for mitigating air leakage and moisture related issues, especially in Canada's colder climates. Quik-Therm's engineered 936 Connect Wall Weatherization System utilizes Air Dry Connect (ADC) insulation panels to create a moisture resistant, semi vapour permeable, continuous exterior insulation system. By installing ADC panels directly over stud framing, the 936 Connect System can eliminate the requirement for exterior sheathing, house wrap and interior 6 mil poly. The 936 Connect System works with both 2x4 and 2x6 stud framing. The fasteners create a compression fit which seals the all-encompassing air, vapour and thermal control layer to the wall framing system. As a result, the potential for a double vapour barrier is effectively eliminated. The evenly spaced outboard drainage channels promote gravity induced drainage and drying between 936 Connect and exterior cladding materials. Tongue and groove connections aid in structure rigidity and panel alignment.

INTENT

Quik-Therm's 936 Connect System is an ideal option for residential and low-rise commercial (up to 3 storeys) projects. This engineered system is intended to simplify your wall assembly while meeting, and most times exceeding, the National Building Code performance requirements.

OPTIMAL WALL ASSEMBLY

The 936 Connect System performs 15% better than the current minimum code requirements for wall construction. By minimizing thermal bridging, it offers exceptional energy performance and comfort.



936 CONNECT SYSTEM: EFFECTIVE R-19.9

- Exterior Cladding
- 2" Quik-Therm ADC Insulation Panel
- 2" x 4" Wood Studs @ 16" o/c
- R-12 Cavity Batt Insulation
- Interior Drywall
- Vapour Retarder Primer/Sealer

CONVENTIONAL: EFFECTIVE R-17

- Exterior Cladding
- Exterior Housewrap
- Exterior Sheathing
- 2" x 6" Wood Studs @ 16" o/c
- R-20 Cavity Batt Insulation
- 6 mil Interior Poly
- Interior Drywall

No Sheathing: Expanded polystyrene (EPS) Type 2, meeting the CAN/ULC - S701.1 Material Standard are permitted in lieu of plywood, OSB and gypsum sheathing in a Part 9 building.

No Housewrap: Foam and tape all insulation panel joints to create a continuous air barrier. By sealing all joints, you can achieve Air tightness levels <1 Air Changes per Hour (ACH) during blower door testing - exceeding minimum industry standards.

No Poly: Apply two coats of vapour retarder primer on the interior drywall to reduce outward vapour flow during cold months and adequately restrict interior vapour flow during warmer months.

CANADIAN PRODUCT

Quik-Therm Insulation Solutions Inc. is a Canadian-owned insulation panel manufacturer based in Winnipeg, Manitoba. Choosing a Canadian insulation manufacturer for your construction project is more than a procurement decision—it's an investment in quality, reliability, and the Canadian economy. Prioritizing the sourcing of domestic materials reduces supply chain risks and transportation emissions, helping projects stay on schedule while lowering their environmental footprint.

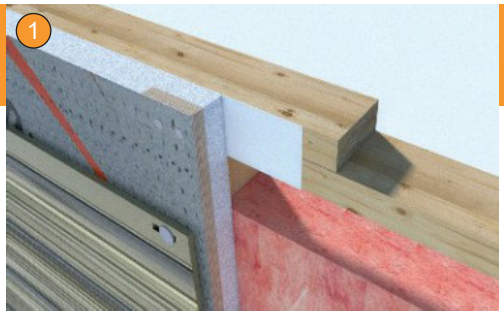
MADE IN CANADA

936 CONNECT SYSTEM ADVANTAGES

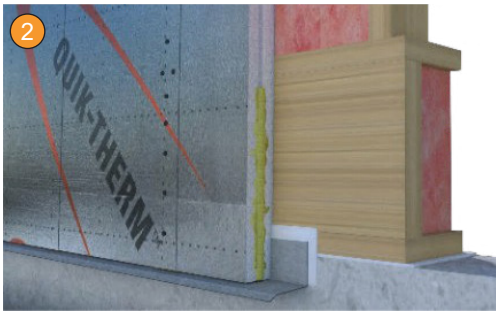
Simplified Assembly	By eliminating wall accessories that are no longer required, material costs and on-site labour hours are significantly reduced when compared to conventional designs.
Rebates	Due to the superior effective R-value and air tightness performance of the 936 Connect System, homeowners and builders are eligible for government energy saving rebate programs when utilizing exterior insulation on their projects. Efficiency rebate programs are available in most Canadian provinces. Consult your local programs to see if your project can qualify for rebates.
Cladding Options	Quik-Therm insulation panels can be installed in any orientation and are engineered to support a variety of exterior cladding finishes including vinyl, metal, fiber cement, composite aluminum, full bed masonry, veneer masonry and stucco*. Designed to handle up to 13 lbs/sqft of dead load -- the system ensures durability and compatibility with virtually any exterior finish.

*Stucco finish requires 2 layers of building paper to be installed between the insulation panel and stucco finish to ensure proper adhesion.

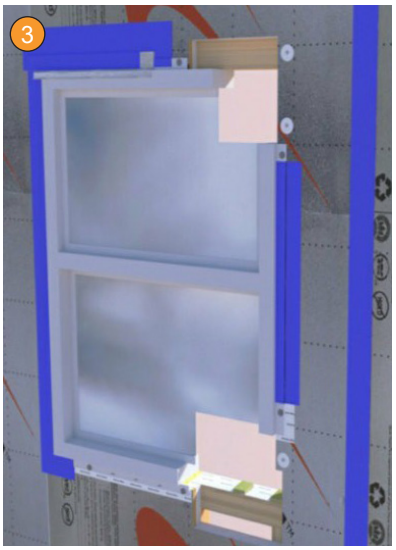
INSTALLATION QUICK TIPS & DETAILS



Install foam gasket at top and bottom framing plate to air seal ADC panels to framing. Install insulation washers to promote tight seal.

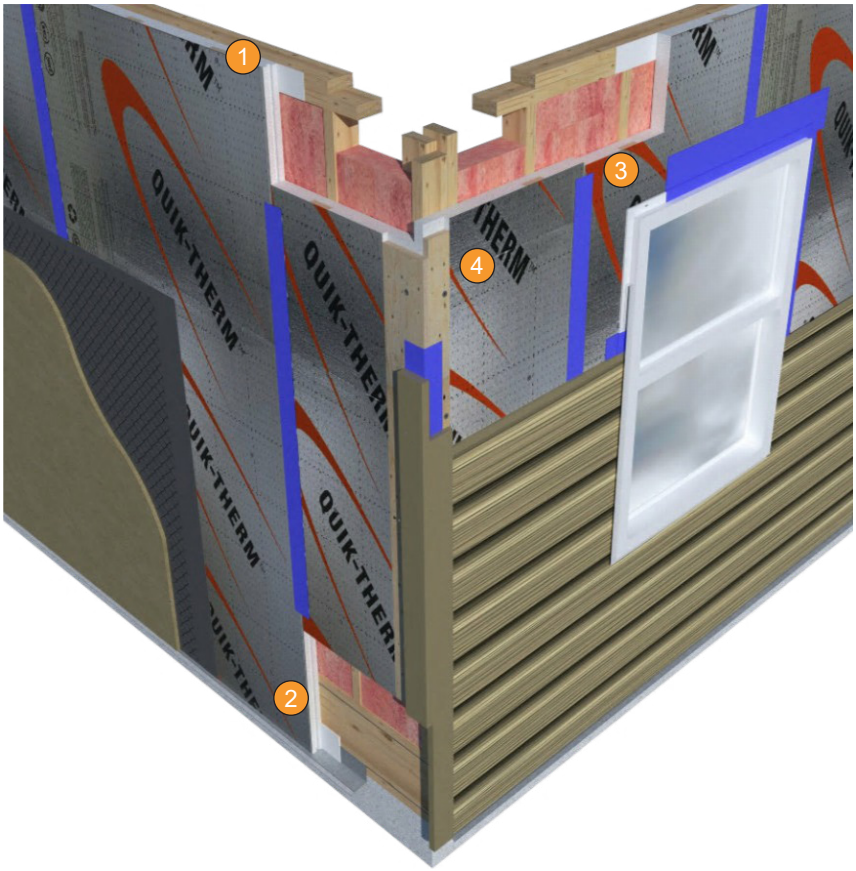


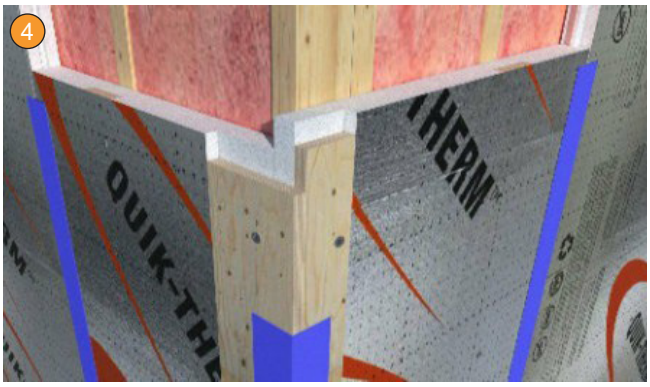
Extend ADC panels over rim joist to eliminate thermal bridging (with foam gasket at bottom plate). Foam and tape insulation joints.



Installing windows and doors with nailing flanges over ADC panels effectively eliminates thermal bridging through framing.

- All insulation panel joints to be spray foamed and taped to provide a continuous airtight exterior assembly. Do not force panels tightly together.
- Insulation panels up to 2.5” thick can be installed using standard 3-1/4” framing nails with a pneumatic framing nailer by fastening through the built-in furring, back to wood stud framing.
- When insulation panels are installed in a vertical orientation, space nails 8” on center along furring strips.
  In a horizontal orientation, fasten 2 nails per furring strip into each framing member (16”on center).
- For insulation thicknesses over 2.5”, screw fasteners are required.
- Butt ends to connect over studs (similar to exterior sheathing).
  *For locations where butt ends don’t align center over a stud, an extra stud or 3 pieces of horizontal blocking (spaced evenly) must be incorporated. Studs can be installed in conventional or flat orientation.





Common method for finishing corners shown. There are a variety of methods for finishing corners as determined by building design or cladding type.

Hot knife cutter profiled to match 3” x 3/4” built-in furring allows you to easily embed additional furring strips into the insulation sheet as required to suit the design and construction methods.

NATIONAL BUILDING CODE OF CANADA – COMPLIANCE F.A.Q.

Canadian provinces generally adopt the National Building Code of Canada (NBCC) as the basis for their respective provincial building codes. However, provinces and municipalities may introduce amendments or supplementary requirements to address specific regional conditions, priorities, or regulatory considerations. Compliance is typically achieved by adhering to the acceptable solutions outlined in Division B of the Code, which establishes prescriptive requirements beginning with consideration of the project's geographic location.

Can a Part 9 building be constructed with rigid foam plastic insulation sheathing in lieu of plywood, OSB or exterior gypsum?

Yes! Article 9.23.17.1 *Required Sheathing* and Table 9.23.17.2.-A *Wall Sheathing Thickness and Specifications* lists permitted materials for use as sheathing in a Part 9 building. Polystyrene (expanded polystyrene (EPS)) Types 1 and 2, meeting the CAN/ULC - S701.1 Material Standard are permitted in lieu of plywood, OSB and gypsum sheathing in a Part 9 building.

Does Quik-Therm 936 Connect meet the requirements of NBCC Articles 9.23.13.1. *Requirements for Low to Moderate Wind and Seismic Forces*?

Yes! Quik-Therm 936 Connect System meets the requirements of NBCC Article 9.23.13.1.(1) by complying with the design data in Table C-2, applicable geographic zones. 936 Connect also meets the requirements of sentence 9.23.13.1(2). by complying with Sub-clause 9.23.13.1.(2)(a)(iii).

Does the NBCC require 2x6 studs when constructing a Part 9 building?

No! Article 9.23.10.1. *Stud Size and Spacing* and Table 9.23.10.1 define supported loads, minimum stud size, maximum stud spacing and the maximum unsupported height (of the stud) for use in interior and exterior walls. For exterior walls supporting a "*Roof with or without attic storage plus one floor*", 2 x 4 studs, spaced 16" O.C., to a maximum unsupported height (length of the wall stud) of 3.0 meters, are permitted for use in a Part 9 building.

Does the NBCC require polyethylene as a vapour barrier when constructing a Part 9 building?

No! Polyethylene is not strictly required by the NBCC for Part 9 buildings. However, thermally insulated assemblies do require a vapour barrier in accordance with Article 9.25.4.1 *Required Barrier to Vapour Diffusion* and 9.25.4.2 *Vapour Barrier Material*s. A vapour barrier must be installed on the warm side of the insulated assemblies and must have a vapour permeance not greater than 60 ng/(Pa×s×m^2) in accordance with ASTM E96/E96M.
Sentence 9.25.4.2.7 permits the use of coatings applied to gypsum board to function as the vapour barrier. Permeance of the coating shall be determined in accordance with CAN/CGSB-1.501-M.

Is an air barrier required in Part 9 Construction?

Yes! Article 9.25.3.1. *Required Barrier to Air Leakage* requires a continuous air barrier in wall, ceiling, and floor assemblies separating a conditioned space from an unconditioned space. Air barrier systems must create an effective barrier to air infiltration and exfiltration when exposed to a differential air pressure from stack effect, mechanical systems or wind. Materials used as an air barrier must have an air leakage of not greater than 0.02 L /(s.m2) measured at a pressure difference of 75 pascals (Pa), when tested in accordance to ASTM E 2178. Note: Quik-Therm performed two ASTM 2178 air permeance tests - one with laminates not breached and the other with laminates breached. The results from both tests met the requirements of an air barrier, as outlined in Section 5.4.1.2. in Division B, of the NBCC.

Does a vapour barrier need to be continuous?

No! Vapour barrier must form an uninterrupted layer except where penetrations are properly sealed. Vapour barrier must be installed so that it forms an effective barrier over the insulated surface to ensure moisture diffusion is controlled and condensation risk is minimized.