



ENGINEERED FOR PERFORMANCE BUILT FOR SIMPLICITY

**NO Z-GIRTS
NO THERMAL CLIPS
EFFECTIVELY NO THERMAL BRIDGING**

SYSTEM DESCRIPTION

Quik-Therm's engineered Matrix System utilizes two or more Air Dry Connect (ADC) insulation panels installed over roof or wall assemblies. The first ADC layer is mechanically fastened back to the structure. Each consecutive insulation layer is fastened to the built-in plywood furring strips of the previous insulation layer installed.

Compared to conventional clip and rail assemblies, the Matrix System significantly reduces thermal bridging while improving energy efficiency, durability, and moisture management. This exterior approach manages moisture by mitigating the potential for condensation in wall and roof assemblies. As a result, the risk for mould growth and structural degradation is significantly reduced.

Additionally, improved energy efficiency reduces reliance on HVAC systems and lowers greenhouse gas emissions. The Matrix System offers a more sustainable and environmentally friendly building while enhancing long-term structural integrity.

INTENT

Quik-Therm's Matrix System is an ideal option for both residential and commercial projects, especially in extreme climate zones. The engineered system is intended to simplify wall and roof assemblies while meeting, and most often exceeding, National Building Code performance requirements.

OPTIMAL WALL ASSEMBLY



MATRIX SYSTEM ASSEMBLY

- Exterior Cladding
- QT ADC Rigid Insulation
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- Air/Vapour Barrier Membrane
- Exterior Sheathing
- Metal or Wood Studs @ 16" o/c
- Interior Drywall

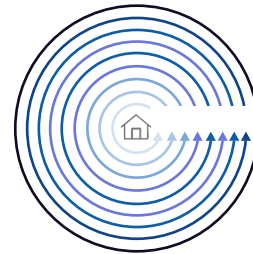
CONVENTIONAL ASSEMBLY

- Exterior Cladding
- Wood Strapping
- Rigid Insulation & Metal Z-Girts
- Rigid Insulation & Metal Z-Girts
- Thermal Clip Attachment System
- Air/Vapour Barrier Membrane
- Exterior Sheathing
- Metal or Wood Studs @ 16" o/c
- Interior Drywall

ONE SYSTEM FEWER TRIPS AROUND THE BUILDING



- Exterior Cladding
- Rigid Insulation
- Air/Vapour Barrier
- Exterior Sheathing



- Exterior Cladding
- Wood Strapping
- Rigid Insulation
- Metal Z-Girts
- Thermal Clip
- Air/Vapour Barrier
- Exterior Sheathing

FASTENERS



#12 UNIVERSAL SCREW (Wood Applications)



#12 FLAT HEAD SCREW (Metal Applications)



For projects utilizing Quik-Therm's Air Dry Connect (ADC) panels, U2 fasteners are engineered and provided to suit the designed assemblies. Insulation panels over 2.5" thick, require #12 screw fasteners. Screws must be 1.5" to 2" longer than the total ADC panel thickness to meet minimum structural penetration and cladding load requirements.

Simplified Assembly

By eliminating wall accessories that are no longer required, material costs and on-site labour hours are reduced or eliminated when compared to conventional designs.

Thermal Performance

The Quik-Therm Matrix System offers significantly higher effective R-value performance vs. "clip & rail" and metal Z-Girt systems. The built-in plywood furring and fasteners are encapsulated within its EPS foam core. A Low-E perforated polymer facer is laminated to both sides of the panel. As a result, fastener condensation and dripping is effectively eliminated.

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 cementitious stucco*.

Designed to handle up to 13 lbs/sqft of dead load -- the system ensures durability and compatibility with virtually any exterior finish.

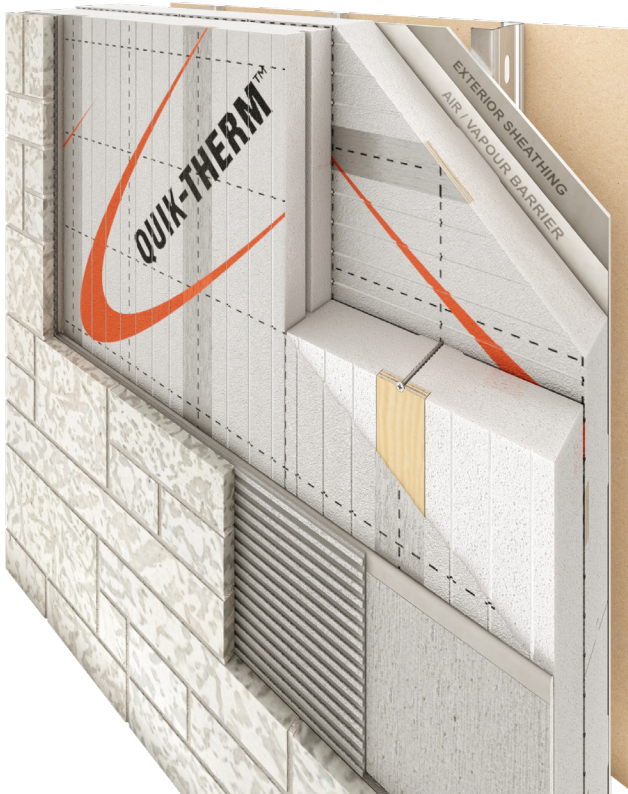
*Cementitious stucco finish requires either 1 layer of cement board OR 2 layers of building paper to be installed between the insulation panel and stucco finish to ensure proper adhesion.

MATRIX SYSTEMS - WALLS

MATRIX SYSTEM - WALL APPLICATION DESCRIPTION

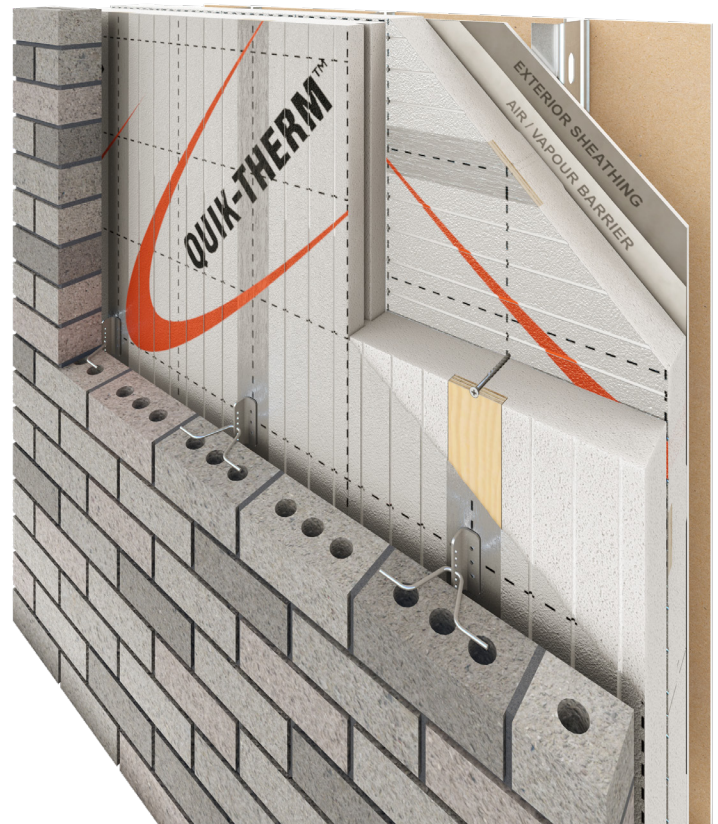
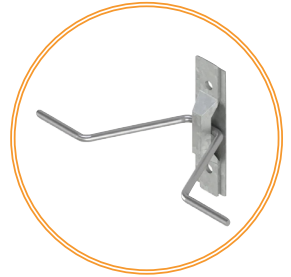
Multi-layer insulation wall assemblies have become increasingly common in commercial construction as building codes continue to demand higher levels of energy efficiency and improved building envelope performance. In many climate zones across Canada, a single layer of insulation is often insufficient to achieve the required effective R-value, making multi-layer insulation systems a practical and often necessary solution for code compliance and long-term building durability.

By allowing insulation layers to be stacked, while maintaining continuous thermal performance and secure cladding attachment, Quik-Therm's Matrix System helps designers and contractors achieve high-performance wall assemblies that are more energy efficient, cost-effective, and easier to construct.



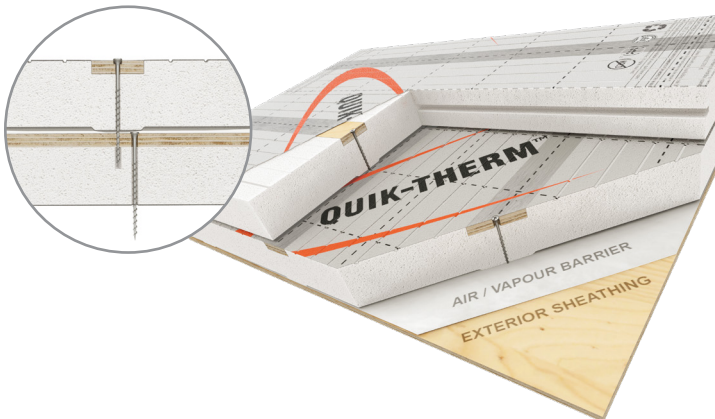
SHORTER MASONRY TIES

- Reduce Thermal Bridging
- Eliminate Long Ties to Framing
- Simplify Installation Sequencing
- Minimize Air Barrier Penetrations
- Improve Overall Constructability



MINIMAL THERMAL BRIDGING

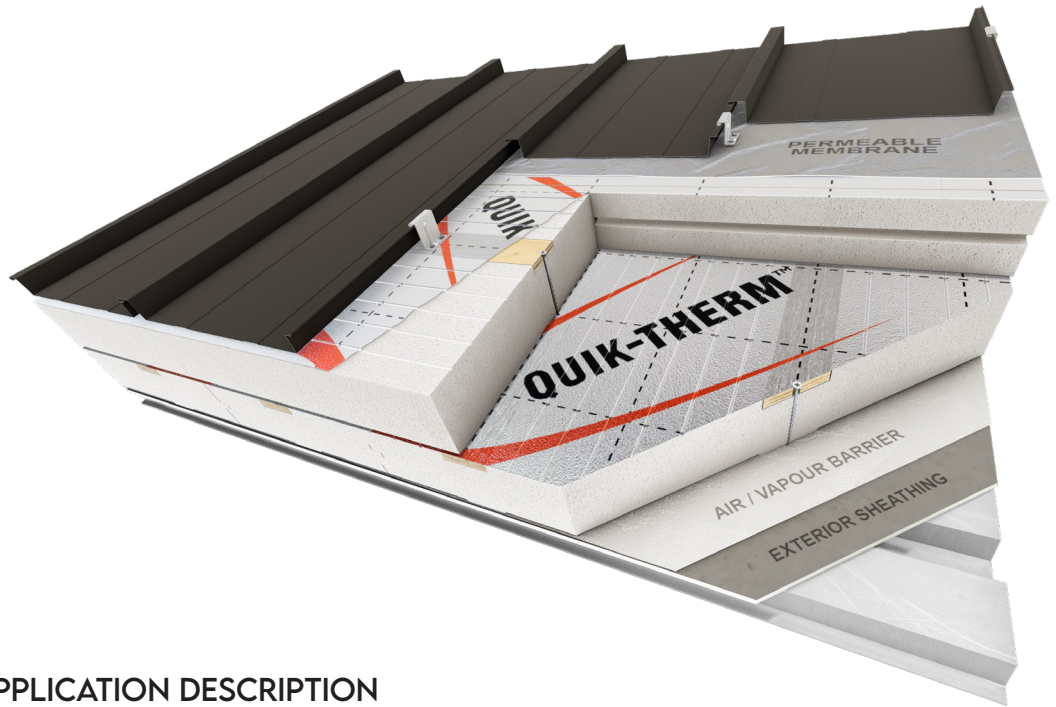
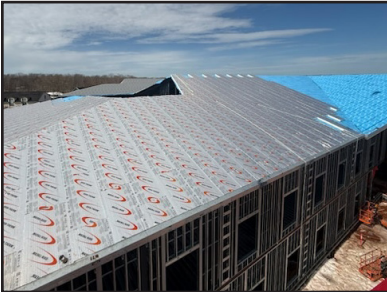
Each insulation layer fastens directly to the built-in plywood furring strips of the layer beneath it, eliminating the need for long, expensive fasteners and additional sub-framing accessories.



STRUCTURAL CLADDING SUPPORT

- Continuous Structural Fastening Surface
- 13 lbs/sqft Dead Load Capacity
- Simplified Construction Detailing
- Accepts Variety of Cladding Finishes
- Engineered Assemblies

MATRIX SYSTEMS - ROOFS



MATRIX SYSTEM - ROOF APPLICATION DESCRIPTION

When adapted for standing seam metal roofs, Air Dry Connect panels are installed in a two-direction, orthogonal (criss-cross) pattern. Consequently, thermal bridging is effectively eliminated. Since each Air Dry Connect panel fastens directly to the built-in plywood furring strips of the layer below, the need for thermal clips & Z-girts and long expensive fasteners is eliminated. At the same time, engineered perforations in the heat-sealed laminate allow water vapour to diffuse inward during the warmer summer months and outward during colder winter months, thus the potential for mould growth and material degradation is mitigated. Quik-Therm's Matrix System roofing assembly is robust — it meets Canadian wind uplift and snow load requirements. The Matrix System also provides resistance to drag effect on sloped roofs when paired with a structural member (C-Channel) at the base/perimeter of the roof.

VAPOUR-PERMEABLE UNDERLAYMENTS

Due to a phenomenon known as night sky radiation, metal roofing cools rapidly during summer nights. This phase change effect causes water vapour to condense on the underside of the metal panels. A vapour-permeable membrane between the ventilated metal roofing and the Matrix System allows accumulated water to drain and dry, reducing the potential for interior leaks and material deterioration.

Acceptable Underlayment Products:

- IKO - Aquabarrier VP (High-Temp)
- Soprema - Lastobond Stick VP (High-Temp)
- Vapro Shield - SlopeShield Plus Self-Adhered (High-Temp)
- Tremco - ExoAir 210AT

Others Available Upon Review

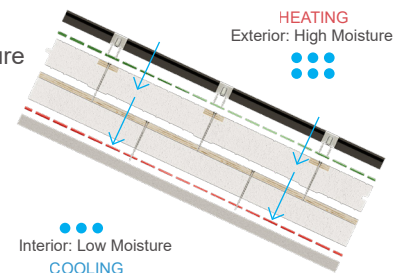
EFFECTIVE THERMAL RESISTANCE

Metal Deck Assembly

Quik-Therm Thickness	Nominal R-value (RSI)	Effective R-value (RSI)
4"	R-16.72 (2.94)	R-19.0 (3.35)
6"	R-25.08 (4.42)	R-27.0 (4.76)
8"	R-33.44 (5.89)	R-34.9 (6.14)
10"	R-41.80 (7.36)	R-42.5 (7.49)
12"	R-50.16 (8.83)	R-50.2 (8.83)

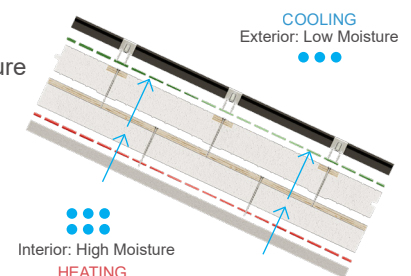
SUMMER

- High Exterior Temperature and Pressure Drives Vapour Inward



WINTER

- High Interior Temperature and Pressure Drives Vapour Outward



AIR & MOISTURE MANAGEMENT

- Free Drainage/Drying for Incidental Moisture Removal
- Natural Airflow Improves Overall Drying Performance
- Prevents Mould Growth and Material Degradation
- Outperforms Conventional Foil-Faced Insulation Systems