

## KEY FEATURES:

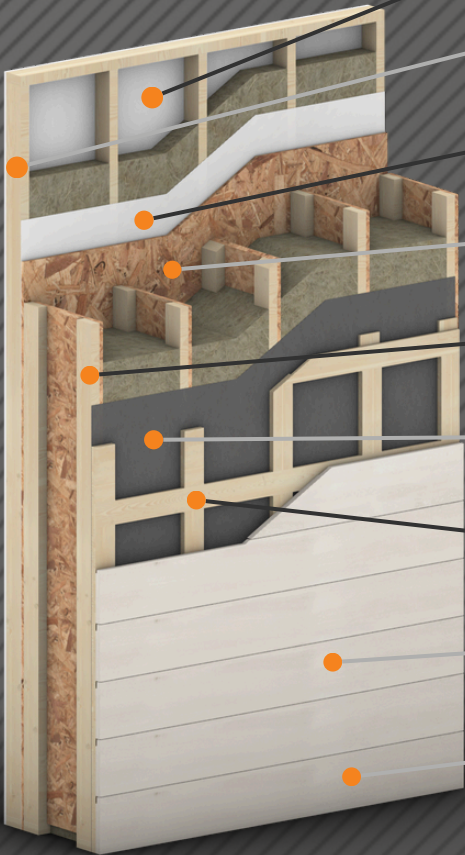
Maximum thermal resistance for extreme cold-climate performance

Airtight design eliminates drafts and enhances indoor comfort

Preinstalled service cavity simplifies trades and reduces labor

PHI-certified insulation depths for Passive House & Net-Zero targets

Prefabricated for fast, consistent, high-performance builds



# Quantum THX

(Thermal eXtreme)








The Quantum THX Panel System delivers best-in-class thermal performance for cold and cool climate new builds. Engineered for airtightness and extreme insulation, each panel includes a wood-framed service cavity and smart vapour control—creating a warm, quiet, and energy-efficient building envelope.

With PHI-certified values and customizable sizing, THX panels simplify Passive House and Net-Zero construction by reducing on-site labor and accelerating project timelines—while meeting the highest standards for comfort, code compliance, and long-term durability.

Application	Thermal Resistance (R/RSI)	Thickness (in/mm)	Max Panel Size
Retrofit, New Construction	R value (*F·ft <sup>2</sup> ·hr/BTU) 37.6 – 50.3 RSI (K·m <sup>2</sup> /W) 6.63 – 8.85	418mm, 519mm or custom	10.1 m × 3.6 m

- 1 Site Applied Interior Finish
- 2 3.5" Wood Framed Interior Service Cavity (SC) or Insulated (ISC)
- 3 Primary Air & Vapour Control (Airtight,Vapour Diffuse Membrane)
- 4 OSB Sheathing
- 5 Double Wood Stud Cavity & Insulation (Variable Depths PHI Certified Dims Listed Below)
- 6 Weather Resistive Rainscreen (Airtight, Vapour Diffuse)
- 7 Universal Strapping (Supports Cladding in Any Direction)
- 8 Preinstalled Exterior Cladding (Optional, ~80% Coverage) ACM, Fibre Cement, Composite, Engineered Wood
- 9 Facility Installed Windows & Doors (Optional, not shown here)

• Note: Clear Field Thermal Resistance & Heat Transfer modelled using glass wool (30-50% recycled)

NOMINAL DEPTH	TOTAL ASSEMBLY DEPTH	CLEAR FIELD THERMAL RESISTANCE	CLEAR FIELD HEAT TRANSFER	CERTIFICATION	PASSIVE HOUSE INSTITUTE (PHI) CERTIFICATE
SC=service cavity ISC=insulated service cavity		R-Value / RSI (ft <sup>2</sup> ·°F·hr/BTU) / (m <sup>2</sup> K/W)	U-value (BTU/ft <sup>2</sup> ·°F·hr) / (W/m <sup>2</sup> K)		
16" + 3.5" ISC	19 15/16" / 519mm	61.1 / 10.77	0.016 / 0.09		
16" +3.5" SC	19 15/16" / 519mm	52.6 / 9.09	0.019 / 0.11		
12" + 3.5" ISC	15 15/16" / 418mm	48.6 / 8.56	0.021 / 0.12		
12" +3.5" SC	15 15/16" / 418mm	38.5 / 6.67	0.026 / 0.15		
Custom Depth Available	Custom Assembly available	Project Specific	Project Specific		