

STRUCTURAL WALL INSULATION

RESIDENTIAL | MULTI-FAMILY | LIGHT COMMERCIAL

Continuous insulation is a vital component of a building’s envelope. For building designers requiring the highest quality rigid insulation for wall applications, ThermalStar® Structural Wall Insulation (SWI) provides unmatched quality, with a combined stable long term R-value and structural shear capacity that will last the lifetime of your structure.

Manufactured under an industry leading quality control program monitored by UL, ThermalStar Rigid Insulation meets or exceeds ASTM C578 standards, providing an HFC free rigid insulation product with a low Global Warming Potential (GWP).

The physical properties of the insulation component of SWI are listed below. The structural properties of ThermalStar SWI are dependent on application and fastening patterns, refer to DrJ TER 1905-02 for complete design information.

INSULATION PHYSICAL PROPERTIES

PROPERTY	ASTM TEST METHOD	STRUCTURAL WALL INSULATION (SWI)	
		R3	R5
Compressive Strength (psi) at 10% Deformation ¹	D1621	10	10
Product R-value at 75°F Mean Temperature	C518	3.2	5.0
Product R-value at 40°F Mean Temperature	C518	3.3	5.2
Product R-value at 25°F Mean Temperature	C518	3.5	5.4
Water Vapor Permeance (perms)	E96	0.3	0.3
Surface Burning - Flame Spread ¹	E84	<25	<25
Surface Burning - Smoke Developed ¹	E84	<450	<450
Maximum Use Temperature	-	Short Term (10-15 minutes) 180°F, Long Term 165°F	

¹ The rigid insulation component of ThermalStar SWI is elastic up to 1% deformation. A safety factor of 3 is recommended for long term loads to minimize long term deflection.

CODE COMPLIANCE

ThermalStar SWI complies with the model building codes when properly installed, as found in the following code reports and classification listings:

- International Energy Conservation Code (IECC) – UL ER16529-01, DrJ TER 1905-02
- International Residential Code (IRC) – UL ER16529-01, DrJ TER 1905-02
- International Building Code (IBC) – UL ER16529-01, DrJ TER 1905-02

WARRANTY

The rigid insulation component of ThermalStar SWI is backed by a limited lifetime warranty for thermal performance. See separate ThermalStar warranty for terms and conditions.

STANDARD PRODUCT OFFERINGS

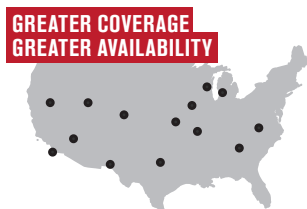
COMPRESSIVE STRENGTH	10 psi
SIZE	4'x8', 4'x9', or 4'x10' sheets
THICKNESS	3/4", 1-1/8"

ACCESSORIES

ThermalStar SWI can be paired with ThermalStar Laminated Wall Insulation GPS (LWI GPS). ThermalStar LWI GPS is intended for non structural areas where continuous insulation with an integrated air and water resistive barrier component is desired.

ThermalStar Tape, or approved alternative, is required to seal the joints to achieve a water resistive barrier.

FOR ADDITIONAL RESOURCES, VISIT THE WALL INSULATION SECTION OF OUR WEBSITE [ATLASMOLDEDPRODUCTS.COM](https://atlasroofing.com/atlas-molded-products)



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