

INSULATION BOARD

ROOF | WALL | BELOW GRADE APPLICATIONS

Insulation is a vital component of a building's envelope. For building designers requiring the highest quality rigid insulation for roof, wall or below grade applications, ThermalStar® Insulation Board provides unmatched quality, with a stable long term R-value that will last the lifetime of your structure.

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

PHYSICAL PROPERTIES

PROPERTY	ASTM TEST METHOD	INSULATION BOARD					
		10	13	15	25	40	60
Compressive Strength (psi) at 10% Deformation ¹	D1621	10	13	15	25	40	60
ASTM Classification	C578	Type I	Type VIII	Type II	Type IX	Type XIV	Type XV
R-value per inch at 75°F Mean Temperature	C518	3.9	3.9	4.2	4.4	4.4	4.5
R-value per inch at 40°F Mean Temperature	C518	4.2	4.3	4.6	4.8	4.8	4.9
R-value per inch at 25°F Mean Temperature	C518	4.4	4.5	4.8	5.0	5.0	5.1
Flexural Strength (psi)	C203	25	30	35	50	60	75
Water Absorption (% by volume) 24 Hour Immersion	C272	3.0	2.0	2.0	1.0	1.0	1.0
		24 Hour Immersion & 24 Hours @ 50% RH	0.3	0.3	0.3	0.3	0.3
Water Vapor Permeance at 1" Thick (perms)	E96	5.0	3.5	3.5	2.5	2.5	2.5
Surface Burning - Flame Spread	E84	<25	<25	<25	<25	<25	<25
Surface Burning - Smoke Developed	E84	<450	<450	<450	<450	<450	<450
Maximum Use Temperature	-	Short Term (10-15 minutes) 180°F, Long Term 165°F					

¹ ThermalStar Insulation Board 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 Insulation Board complies with the model building codes when properly installed, as found in the following code reports and classification listings:

- ASTM C578 – (See product marking for type)
- Physical Properties – UL QORW.R16529
- Surface Burning – UL BRYX.R16529
- CAN/ULC-S102.2, S701 – ULC BOZCC.R16529
- International Energy Conservation Code (IECC) – ICC-ES ESR-1962, UL ER16529-01
- International Residential Code (IRC) – ICC-ES ESR-1962, UL ER16529-01
- International Building Code (IBC) – ICC-ES ESR-1962, UL ER16529-01
- NFPA 285 Approved Assemblies - UL ER16529-01

WARRANTY

ThermalStar Insulation Board is backed by a limited lifetime warranty for physical and thermal performance, in addition to termite resistance when applicable. See separate ThermalStar warranty for terms and conditions.

STANDARD PRODUCT OFFERINGS

COMPRESSIVE STRENGTH	10 psi, 13 psi, 15 psi, 25 psi, 40 psi, 60 psi
SIZE	4'x8' square edge sheets
THICKNESS	1/2", 3/4", 1", 1-3/16", 1-1/2", 2", 2-3/16", 2-3/8", 2-1/2", 3", 4"

ENHANCEMENTS AVAILABLE

Depending on the needs of your project, ThermalStar Insulation Board may be specified with integrated termite resistance in below grade applications for long term protection. Additionally, graphite enhanced ThermalStar Insulation Board is available for wall applications to achieve a higher R-value per inch. Refer to our *Insulation Board GPS Tech Data Sheet* for additional information.

FOR ADDITIONAL RESOURCES, VISIT THE BUILDING SOLUTIONS SECTION OF OUR WEBSITE [ATLASMOLDEDPRODUCTS.COM](https://atlasroofing.com/atlasmoldedproducts.com)

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GREATER AVAILABILITY**



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