

LAMINATED ROOF INSULATION (LRI)

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Insulation is a vital component of a building's envelope. For building designers requiring the highest quality rigid insulation for roof applications, ThermalStar<sup>®</sup> Laminated Roof Insulation (LRI) 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 LRI 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 | 10  | 13        | 15      |
|--|------------------|---|-----------|---------|
| Compressive Strength (psi) at 10% Deformation <sup>1</sup> | D1621            | 10  | 13        | 15      |
| ASTM Classification  | C578             | Type I  | Type VIII | Type II |
| R-value per inch at 75°F Mean Temperature                  | C518             | 3.9   | 3.9       | 4.2     |
| R-value per inch at 40°F Mean Temperature                  | C518             | 4.2   | 4.3       | 4.6     |
| R-value per inch at 25°F Mean Temperature                  | C518             | 4.4   | 4.5       | 4.8     |
| Flexural Strength (psi)                                    | C2O3             | 25  | 30        | 35      |
| Water Absorption (% by volume) 24 Hour Immersion           | C272             | 1.0   | 1.0       | 1.0     |
| Water Vapor Permeance (perms)                              | E96              | 0.3   | 0.3       | 0.3     |
| Surface Burning - Flame Spread                             | E84              | <25   | <25       | <25     |
| Surface Burning - Smoke Developed                          | E84              | <450  | <450      | <450    |
| Maximum Use Temperature                                    | -                | Short Term (10-15 minutes) 180°F, Long Term 165°F |           |         |

<sup>1</sup> ThermalStar LRI 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 LRI 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 B0ZCC.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
- Roof Assemblies UL TGFU.R16529

### WARRANTY

ThermalStar LRI is backed by a limited lifetime warranty for physical and thermal performance. See separate ThermalStar warranty for terms and conditions.

# **STANDARD PRODUCT OFFERINGS**

| COMPRESSIVE STRENGTH | 10 psi, 13 psi, 15 psi |  |
|----------------------|------------------------|--|
| SIZE                 | 4'x50' fanfold         |  |
| THICKNESS (R-VALUE)  | 3/8", 1/2"             |  |

#### FOR ADDITIONAL RESOURCES, VISIT THE ROOF INSULATION SECTION OF OUR WEBSITE ATLASMOLDEDPRODUCTS.COM



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