



TRI-BUILT® HD ISO

High Density Roof Cover Board Insulation

DESCRIPTION

Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to inorganic coated glass facers (CGF) on both sides. Available in 0.5" thick 4ft x 8ft (1220mm x 2440mm) and 0.5" thick 4ft x 4ft (1220mm x 1220mm) panels. Manufactured in accordance with ASTM C1289, Type II, Class 4, Grade 1 (80 psi (551 kPa) minimum, up to 110 psi (758 kPa) compressive strength) and CAN/ULC-S704 Type 4, Class 3.

APPLICATIONS

Manufactured and tested for use in new and re-roofing applications. TRI-BUILT® HD ISO is used in mechanically attached single-ply, fully adhered single-ply, and self-adhered "peel & stick" roofing systems. These roofing systems depend on proper installation for successful performance. Refer to roof cover manufacturer, FM Approvals® RoofNav and UL Product iQ® for additional application details.

INSTALLATION

TRI-BUILT HD ISO shall be kept dry before, during and after installation. This product will burn if exposed to an ignition source of sufficient heat and intensity. Do not apply flame directly to TRI-BUILT HD ISO insulation. To minimize the effect of thermal bridging, and the impact of moisture/airflow into the roof system, TRI-BUILT strongly recommends the TRI-BUILT HD ISO be installed in multiple layers. Please reference the TRI-BUILT Fastening Pattern Guide for General Installation, Usage Instructions, and Warranty information for TRI-BUILT products. Typical field fastening requirements can be obtained from roof cover manufacturer and/or FM Approvals RoofNav and FM Global Loss Prevention Data Sheet 1-29. Prior to installation, TRI-BUILT recommends, as applicable, you consult with your local building code official(s), contract documents, design professional, and all other relevant parties to ensure appropriate compliance.



TRI-BUILT HD ISO MEETS OR EXCEEDS THE FOLLOWING PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	ASTM C1289 OR CAN/ULC S704 (MIN REQUIREMENTS)
DIMENSIONAL STABILITY	ASTM D2126	<0.5%
COMPRESSIVE STRENGTH	ASTM D1621	¹ Grade 1
WATER ABSORPTION	ASTM C209	<4.0%
	ASTM C1763	<4.0%
	ASTM D2842	<3.5%
WATER VAPOR TRANSMISSION	ASTM E96	<1.5 perm (85.8ng/(Pa·s·m ²))
FLAME SPREAD	ASTM E84/UL723	² <75
SMOKE DEVELOPMENT	ASTM E84/UL723	² <450
TENSILE STRENGTH	ASTM D1623	>2000 psf (95 kPa)
SERVICE TEMPERATURE	—	-100° to +250°F

¹80 psi (551 kPa) minimum, up to 110 psi (758 kPa)

²Numerical ratings are not intended to reflect performance under actual fire conditions. Flame spread index of ≤75 and smoke development ≤450 meet code requirements for foam plastic roof insulation. Physical properties listed above are presented as typical average values as determined by referenced ASTM test methods and are subject to normal manufacturing variation.

CODE COMPLIANCE

- ASTM C1289, Type II, Class 4, Grade 1
- CAN/ULC-S704, Type 4, Class 3
- UL Certified for Canada – Insulated Roof Deck Assemblies Construction No. C38 and 52. Meet CAN/ULC-S126, CAN/ULC-S101 and CAN/ULC-S107
- UL 1256 Classification Construction No. 120, 123 & 292
- UL 790 (ASTM E108) Roofing Systems Classification
- UL 263 (ASTM E119) Fire Resistance Classification
- FM 4450/4470 Refer to FM Approvals® RoofNav for Specific System Details
- FM 4473 rated SH-1 for Severe Hail
- UL Class B Over Combustible Decks with UL Classified Membranes
- IBC Chapter 26 & NBC Sections on Foam Insulation
- UL 2824 Resistant to Mold Growth as Validated by UL Environment

TRI-BUILT® HD ISO

PRODUCT DATA

THICKNESS	THERMAL RESISTANCE		PIECES PER UNIT	SQUARE FT PER UNIT		TRUCKLOAD QUANTITIES (SQUARES)	AVERAGE WEIGHT (LB/SF)	RECYCLED CONTENT		
	¹ R-VALUE	² RSI		4×8	4×4			POST CONSUMER	PRE CONSUMER	TOTAL
0.50"	2.5	0.44	42	1,344	672	645.12	0.50	-	7.4%	7.4%

¹Conditioned thermal values were determined by ASTM Test Method C 518 at 75° mean temperature. Test specimens were conditioned in accordance with procedures outlined in ASTM C1289, Section 11.1.2.1. Test samples were third-party selecte and tested by an accredited material testing laboratory.

²RSI is the metric expression of R-value (m² • K/W).

To minimize the effects of thermal bridging, and the impact of moisture/airflow into the roof system, TRI-BUILT strongly recommends the TRI-BUILT insulation assembly be installed in multiple layers.

FASTENING GUIDELINES

THICKNESS	FM RATING	FIELD FASTENERS PER 4'×8' BOARD
0.5"	1-75	12
	1-90	16

SUSTAINABILITY

TRI-BUILT HD ISO insulation is manufactured using environmentally responsible processes and formulations.

- Contains no CFCs, HCFCs or HFCs
- Zero Ozone Depletion Potential (ODP)
- Negligible Global Warming Potential (GWP)
- Contributes to LEED credits

WARRANTY

TRI-BUILT HD ISO is backed by a Limited 20-Year Thermal Warranty.



Other than the aforementioned representations and descriptions, TRI-BUILT (hereafter, “Seller”) makes no other representations or warranties as to the insulation sold herein. The Seller disclaims all other warranties, express or implied, including the warranty of merchantability and the warranty of fitness for a particular purpose. Seller does, however, have a limited warranty as to the LTTR-Value of the insulation, the terms of which are available upon request from the Seller. Seller shall not be liable for any incidental or consequential damages including but not limited to the cost of installation, removal, repair or replacement of this product. Buyer’s remedies shall be limited exclusively to, at Seller’s option, the repayment of the purchase price or resupply of product manufactured by TRI-BUILT in a quantity equal to that of the nonconforming product. TRI-BUILT distributors, agents, salespersons or other independent representatives have no authority to waive or alter the above limitation of liability and remedies.