

TRI-BUILT® ISO II GRF ROOF INSULATION

DESCRIPTION

Available in both flat and tapered panels. Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to non-asphaltic, fiber-reinforced organic felt facers (GRF) on both sides. TRI-BUILT® ISO II GRF Roof Insulation is offered in a variety of thicknesses (including tapered insulation), providing long-term thermal resistance (LTTR) values from 5.7 (4.3 for tapered) to 26.8. Flat TRI-BUILT ISO II GRF Roof Insulation is available in 4ft x 8ft (1220mm x 2440mm) and 4ft x 4ft (1220mm x 1220mm) panels. TRI-BUILT Tapered ISO II GRF Roof Insulation is available in 4ft x 4ft (1220mm x 1220mm) panels. Manufactured in accordance with **ASTM C1289, Type II, Class 1, Grade 2 (20 psi) or Grade 3 (25 psi) and CAN/ULC-S704 Type 2, Class 3 or Type 3, Class 3.**

APPLICATIONS

Manufactured and tested for use in new and re-roofing applications. TRI-BUILT ISO II GRF Roof Insulation shall be installed over the roof deck. TRI-BUILT ISO II GRF Roof Insulation is used in built-up (BUR), modified bitumen, standing seam metal, ballasted single-ply, mechanically attached single-ply and adhered single-ply 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 ISO II GRF Roof Insulation 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 ISO II GRF Roof 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 ISO II GRF Roof Insulation be installed in multiple layers. Typical field fastening requirements can be obtained from roof cover manufacturer and/or FM Approvals Roof Nav, or FM Global Property Loss Prevention Data Sheet 1-29.

PHYSICAL PROPERTIES

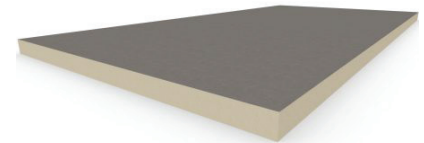
TRI-BUILT ISO II GRF ROOF INSULATION MEETS OR EXCEEDS THE FOLLOWING PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	ASTM C1289 OR CAN/ULC S704 (MIN REQUIREMENTS)
DIMENSIONAL STABILITY	ASTM D2126	<2%
COMPRESSIVE STRENGTH	ASTM D1621	20 psi (140 kPa) or 25 psi (172 kPa)
WATER ABSORPTION	ASTM C209	<1.5%
	ASTM C1763	<1.5%
	ASTM D2842	<3.5%
WATER VAPOR TRANSMISSION	ASTM E96	<1.5 perm (85.5ng/(Pa·s·m²))
PRODUCT DENSITY	ASTM D1622	Nominal 2.0 pcf (32.04 kg/m³)
FLAME SPREAD	ASTM E84/UL723	40–60
SMOKE DEVELOPMENT	ASTM E84/UL723	50–170
TENSILE STRENGTH	ASTM D1623	>730 psf (35 kPa)
SERVICE TEMPERATURE	–	-100° to +250°F

*Numerical 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 nominal manufacturing variations.

CODE COMPLIANCE

- ASTM C1289 Type II, Class 1, Grade 2 (20 psi) or Grade 3 (25 psi)
- CAN/ULC-S704, Type 2, Class 3 or Type 3, Class 3
- CCMC No. 12464-L
- 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
- IBC Chapter 26 & NBC Sections on Foam Insulation



TRI-BUILT ISO II GRF ROOF INSULATION

FLAT GRF ROOF INSULATION

THICKNESS	THERMAL RESISTANCE		PIECES PER UNIT	SQUARE FEET PER UNIT		TRUCKLOAD QUANTITIES (SQUARES)	AVERAGE WEIGHT (LB/SF)	RECYCLED CONTENT		
	AVERAGE ¹ LTR VALUE	² RSI		4×8	4×4			POST CONSUMER	PRE CONSUMER	TOTAL
1.0"	5.7	1.00	48	1536	768	368.64	0.245	33.7%	19.2%	52.9%
1.5"	8.6	1.50	32	1024	512	245.76	0.313	26.4%	18.2%	44.6%
2.0"	11.4	2.01	24	768	384	184.32	0.380	21.7%	17.5%	39.2%
2.5"	14.4	2.53	19	608	304	145.92	0.448	18.4%	17.1%	35.5%
3.0"	17.4	3.06	16	512	256	122.88	0.515	16.0%	16.7%	32.7%
3.5"	20.5	3.60	13	416	208	99.84	0.583	14.2%	16.5%	30.6%
4.0"	23.6	4.15	12	384	192	92.16	0.650	12.7%	16.3%	28.9%

TAPERED GRF ROOF INSULATION

SLOPE	LABEL	THICKNESS			THERMAL RESISTANCE		BOARD FT PER PIECE	PIECES PER UNIT	BOARD FT PER UNIT	SQUARE FT PER UNIT	WEIGHT (LB/SF)	RECYCLED CONTENT		
		MINIMUM	MAXIMUM	AVERAGE	AVERAGE ¹ LTR VALUE	² RSI						POST CONSUMER	PRE CONSUMER	TOTAL
1/8"	AA	0.5"	1.0"	0.75"	4.3	0.76	12	64	768	1024	0.211	39.1%	20.0%	59.0%
1/8"	A	1.0"	1.5"	1.25"	7.1	1.25	20	38	760	608	0.279	29.6%	18.6%	48.2%
1/8"	B	1.5"	2.0"	1.75"	10.0	1.76	28	26	728	416	0.346	23.8%	17.8%	41.6%
1/8"	C	2.0"	2.5"	2.25"	12.9	2.27	36	20	720	320	0.414	19.9%	17.3%	37.2%
1/4"	X	0.5"	1.5"	1.0"	5.7	1.00	16	48	768	768	0.245	33.7%	19.2%	52.9%
1/4"	Y	1.5"	2.5"	2.0"	11.4	2.01	32	24	768	384	0.380	21.7%	17.5%	39.2%
1/2"	Q	0.5"	2.5"	1.5"	8.6	1.51	24	32	768	512	0.313	26.4%	18.2%	44.6%

¹LTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. Test samples were third-party selected and tested by an accredited material testing laboratory.

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

³To 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.

WARRANTY

TRI-BUILT ISO II GRF Roof Insulation 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 LTR-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. Distributors, agents, salespersons or other independent representatives have no authority to waive or alter the above limitation of liability and remedies.