

Trisotech[®] Insulation

Polyisocyanurate Roof Insulation Board

FEATURES

Closed cell foam

- High thermal "R-Value"
- Low thermal conductivity
- Non-rotting, non-absorbent core
- Lightweight, rigid board, easy to handle

Thick fiber facer

- Suitable for adhering to substrates in hot or cold applied adhesives
- Protects foam core

FM Listed

- Manufactured under a FM quality assurance inspection program
- Fire/wind protection

UL Approved

- Manufactured under UL quality assurance inspection program
- UL classified fire protection

BENEFITS

DESCRIPTION

Trisotech[®] Insulation consists of a rigid, closed cell polyisocyanurate foam core laminated on both sides to a black, fiber reinforced, non-asphaltic organic felt facer. Trisotech Insulation is offered as 20 psi compressive strength as a standard, and a 25 psi compressive strength version is available upon request. Trisotech insulation is CFC and HCFC free and the facers are manufactured from 100% recycled material (combination pre-consumer and post-consumer)

BASIC USES

Trisotech Insulation is used to provide high thermal insulation under most roof membrane systems. Trisotech is recommended for use in combination with a coverboard in hot and cold applied BUR and MB roof systems. Trisotech Insulation is also available in tapered configurations. Trisotech Insulation meets ASTM C 1289, Type II, Class I, Grade 2 (20 psi) and Grade 3 (25 psi).

Refer to UL Roofing Materials Systems Directory and/or FM Approvals RoofNav for applicable roof system configurations.

SIZES

Trisotech Insulation is available in truckload quantities in 4' x 4' (1220mm x 1220mm) or 4' x 8' (1220mm x 2440mm) board panels and packaged on dunnage. Thicknesses range from 1" (25mm) to 4" (101mm). Contact your Tremco Representative for a full list of available thicknesses.

When Trisotech Insulation is specified for application in cold adhesives or hot bitumen, the recommended board size is 4' x 4'. Board sizes of 4' x 8' are only acceptable when mechanical attachment of insulation is specified.

APPLICATION

General Application Data: Roof replacement usually involves more complexities than new construction roofing. Often encountered are situations such as rusted/deteriorated decks, rotted wood components, rooftop equipment which cannot be moved or shut down, and numerous other conditions.

The following application information is designed to serve as a general guide. Your local Tremco Representative will prepare detailed specifications based on the condition of your roof.

Structural Decks: Must be properly designed and structurally sound.

Drainage: Ponding conditions are unacceptable and will adversely affect the performance of any roofing system. If positive drainage does not exist, water removal from the roof surface must be facilitated by lowering drains, and/or installing additional drains, tapered insulation, or Tremco approved cellular concrete system.

Insulation Storage: Insulation must be dry and kept dry. When stored outdoors, stack insulation on pallets at least 4 inches (100mm) above ground level. Upon receipt of insulation on the job site, remove the factory plastic packaging. Cover the top and sides of the insulation with waterproof tarpaulin (not polyethylene) and secure. Do not stack more than two pallets high.

APPLICATION CONTINUED

LIMITATIONS

PHYSICAL PROPERTIES

Trisotech® Insulation

Surface Preparation: Prior to installing the insulation, the substrate must be clean, dry and free of dust, dirt, oil, or other contaminants. Concrete and gypsum decks must be properly cured and sufficiently dry prior to installing insulation.

INSTALLATION:

Multiple Layers: The use of two separate layers of insulation is recommended, but required over steel decks. After securing the first layer of insulation, install the additional layer(s) with the board joints offset a minimum 6 inches (150mm) from the joints of the preceding layer. Two layers, with board joints offset, can minimize stress on the roof membrane which results from thermal movement of the deck.

Adhesive Application: Tremco Fas-n-Free, Tremco Low Rise Foam Adhesive, and Tremco Low Rise Foam Adhesive Green are recommended for use with Trisotech Insulation. Obtain and read the Specification Data Sheets for adhesive products prior to use.

Bitumen Application: Hot applied asphalt can be used to adhere Trisotech to concrete decks, to base sheets which are mechanically attached to wood or gypsum decks, and to insulation layer(s) previously secured. Hot asphalt may also be used to adhere coverboards over Trisotech Insulation. Concrete decks should be primed with Tremprime WB and allowed to thoroughly dry. Adhere insulation to substrate in a full coverage of hot applied bitumen, at a coverage rate of 30 lbs. per 100 sq. ft. (1.5 kg/m²) ± 20%. Place insulation immediately into the hot bitumen and step into place to achieve a solid bond.

Mechanical Fastener Application: Tremco Fasteners and Discs are recommended where mechanical attachment of the insulation is specified over steel and wood decks. Do not mix fasteners and discs of different brands unless the combination has been specifically tested and approved by Tremco.

Fasteners must be driven perpendicular to the deck. Do not overdrive the fastener, as the insulation may fracture and become susceptible to loss of attachment. Fastener should be driven tight enough so that the disc will not turn.

- Not intended for use under ponding conditions. Positive drainage is required.
- Not to be exposed to solvents, oils or other contaminants harmful to polyisocyanurate foam insulation.
- Insulation stops are required on roofs with slopes of 2:12 (2" per foot) or greater.
- Not for use directly under hot applied roof membranes. A wood fiber or gypsum cover board is required prior to the application of a hot applied roof membrane.
- For adhered systems where a cover board is not specified, multiple layers of Trisotech must be used when the total insulation thickness is 3.0" or greater.
- For adhered single ply systems when a cover board is not specified, the maximum thickness for the top layer of Trisotech is 2.7".

PROPERTY	TYPICAL VALUE		TEST METHOD
Compressive Strength, min.	Grade 2 - 20 psi (137kPA), Grade 3 - 25 psi (172 kPA)		ASTM D1621
Density, nominal	2.0 lb/ft³ (32.0kg/m³)		ASTM D1622
Flame Spread	40-60		ASTM E84 (10 min)
Smoke Development	50-170		ASTM E84 (10 min)
Conditioned Thermal Resistance at 75°F (24°C) R Value			ASTM C518
		WEIGHT	RECYCLED
	LTTR*	(lbs/sq ft)	CONTENT**
1" (25.4mm)	5.6	0.167	40%
1.5" (38.1mm)	8.5	0.250	30%
2.0" (50.8mm)	11.4	0.333	26%
2.5" (63.5mm)	14.4	0.417	23%
3.0" (76.2mm)	17.4	0.500	21%
3.5" (88.9mm)	20.5	0.583	19%

* Long Term Thermal Resistance, ASTM C 1289 ** By weight, combined pre-consumer and post-consumer

MAINTENANCE

PRECAUTIONS

TECHNICAL SUPPORT

Trisotech[®] Insulation

Your local Tremco Roofing Sales Representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventative maintenance are all part of a sound roof program.

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

Your local Tremco Roofing Sales Representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications.



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