

**TRYMER**
pipe insulation

TRYMER 2500 Polyisocyanurate Foam Insulation

TRYMER* 2500 polyisocyanurate foam insulation is a modified polyisocyanurate cellular foam supplied in the form of bunstock for fabrication into sheets, pipe, tank and vessel covering and other shapes for a variety of thermal insulation applications. Although similar in physical form to polyurethane foams, TRYMER 2500 has better dimensional stability over a wider range of temperatures. TRYMER 2500 has been specifically formulated to provide excellent thermal insulation properties without the use of CFC or HCFC blowing agents.

Applications

TRYMER 2500 is used extensively in industrial and commercial applications within the service temperature range of -297°F to +300°F (-183°C to +149°C). Because of the critical technical design aspects of many of these applications, qualified designers or consultants should design the total system. Dow can provide general guidelines and recommendations on many typical applications for TRYMER 2500. Call 1-866-583-BLUE (2583) or contact your local Dow representative for details. Some typical applications include:

- Pipe, tank and vessel insulation
- Fabricated pipe fitting insulation
- Core material for architectural and structural panels
- Insulation for shipping containers, trucks or rail cars
- Core material for factory built panelized constructions
- Flat or tapered boardstock for roof insulation

SIZE

Height:	22" (56 cm)
Width:	48" (122 cm)
Length:	36" (91 cm) 108" (274 cm)

Custom lengths are also available. Contact your local Dow representative for details.

PHYSICAL/CHEMICAL PROPERTIES

Like all cellular plastics, this product will degrade upon prolonged exposure to sunlight. A covering to block ultraviolet radiation must be used to prevent this degradation. Other coverings to protect the foam from the elements and to meet applicable fire regulations may also be required. Consultation with local building code officials, design engineers/specifiers or insurance personnel is recommended before application.

ENVIRONMENTAL DATA

TRYMER 2500 insulation is specifically formulated to provide excellent thermal insulation properties without the use of chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC) blowing agents. In compliance with the Montreal Protocol and the Clean Air Act, TRYMER 2500 insulation is manufactured with hydrocarbon blowing agents, which have no ozone depletion potential.

FIRE PROTECTION

Consideration should be given to the benefits of and costs of additional fire protection gained by installing automatic fire detection, alarm and suppression systems.

Consultation with local building code officials, design engineers/specifiers or insurance personnel is recommended before application.

Safety Considerations

TRYMER 2500 polyisocyanurate foam insulation requires some care in handling. All persons who work with these materials must know and follow the proper handling procedures. The current Material Safety Data Sheet (MSDS) contains additional information on the safe handling, storage and use of this material. A copy of the MSDS can be obtained by calling 1-866-583-BLUE (2583) or contacting your local Dow representative.

Installation

TRYMER 2500 insulation is easy to fabricate into various sizes and shapes to meet specific design needs. However, because of the critical technical design aspects of many of its applications, Dow recommends that qualified designers or consultants design the total system. Contact a local Dow representative or access the literature library at www.dowpipe.com for more specific instructions.

Availability

TRYMER 2500 insulation is distributed through an extensive network of fabricators and distributors. For more information, call 1-800-232-2436.

Technical Services

Dow can provide technical information to help address questions when using TRYMER 2500 insulation. Technical personnel are available at 1-866-583-BLUE (2583).

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PHYSICAL PROPERTIES ⁽¹⁾	ASTM METHOD	ENGLISH UNITS	VALUES ⁽²⁾	METRIC UNITS	VALUES ⁽²⁾
Density ⁽³⁾	D 1622	lb/ft ³	2.5	kg/m ³	40.0
Compressive Strength ⁽³⁾ Parallel to Rise (Thickness) Perpendicular to Rise (Width) Perpendicular to Rise (Length)	D 1621	lb/in. ²	39 30 40	kPa	268 206 275
Compressive Modulus Parallel to Rise (Thickness) Perpendicular to Rise (Width) Perpendicular to Rise (Length)	D 1621	lb/in. ²	790 490 1000	kPa	5446 3377 6894
Shear Strength Parallel and Perpendicular	C 273	lb/in. ²	17	kPa	117
Shear Modulus Parallel and Perpendicular	C 273	lb/in. ²	285	kPa	1967
Tensile Strength Parallel to Rise (Thickness) Perpendicular to Rise (Width) Perpendicular to Rise (Length)	D 1623	lb/in. ²	35 25 32	kPa	241 172 220
Tensile Modulus Parallel to Rise (Thickness) Perpendicular to Rise (Width) Perpendicular to Rise (Length)	D 1623	lb/in. ²	900 725 1090	kPa	6205 4980 7515
Flexural Strength Parallel and Perpendicular	C 203	lb/in. ²	42	kPa	289
Flexural Modulus Parallel and Perpendicular	C 203	lb/in. ²	780	kPa	5377
k-Factor (75°F [24°C] mean temp.) Initial Aged 180 days @ 75°F (24°C)	C 518	BTU•in./hr•ft ² •°F	0.141 0.190	W/m°C	0.020 0.027
R-Value/in. (75°F [24°C] mean temp.) Initial Aged 180 days @ 75°F (24°C)	C 518	Hr•ft ² •°F/BTU	7.1 5.3	m ² •°C/W	1.25 0.93
Closed Cell Content	D 2856	%	95	%	95
Water Absorption • (24 hr. immersion)	C 272	% by Volume	0.7	% by Volume	0.7
Water Vapor Permeability	E 96	Perm-Inch	3.0	ng/Pa•S•m	4.6
Dimensional Stability ^{(3) (4)} @ -40°F (-40°C), 7 Days length volume @ 158°F (70°C)/97% Relative Humidity, 7 Days length volume @ -10°F (-23°C), 7 Days length volume @ 300°F (149°C), 7 Days length volume @ 158°F (70°C) length volume	D 2126	% Change % Change % Change % Change % Change % Change % Change % Change % Change % Change	-0.1 -0.2 1.5 3.0 0.1 0.1 2.6 3.6 0.4 0.6	% Change % Change % Change % Change % Change % Change % Change % Change % Change % Change	-0.1 -0.2 1.5 3.0 0.1 0.1 2.6 3.6 0.4 0.6
Service Temperature ⁽⁵⁾		°F	-297 to +300	°C	-183 to +149
Surface Burning Characteristics ⁽⁶⁾ Flame Spread, 1" through 6" (2.5 through 15 cm) Smoke Generation	E 84		25 295		25 295
Color			Tan		Tan

- (1) All properties are measured at 74°F (23°C), unless otherwise indicated.
- (2) Unless otherwise indicated, data shown are typical values obtained from representative production samples. This data may be used as a guide for design purposes, but should not be construed as specifications. For property ranges and specifications, consult your Dow representative.
- (3) Average value through foam cross section.
- (4) Frequent and severe thermal cycling can produce dimensional changes significantly greater than those stated here. Special design considerations must be made in systems that cycle frequently.
- (5) Above 300°F, discoloration and charring will occur, resulting in an increased k-factor in the discolored area.
- (6) This numerical flame spread data is not intended to reflect hazards presented by this or any other material under actual fire conditions.

IN THE U.S.:

- For Technical Information: 1-866-583-BLUE (2583)
- For Sales Information: 1-800-232-2436

THE DOW CHEMICAL COMPANY

• Building Materials • 200 Larkin • Midland, MI 48674 • www.dowpipe.com

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COMBUSTIBLE: Protect from high heat sources. Local building codes may require a protective or thermal barrier. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400.



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