

DESCRIPTION

Trymer® Core PIR 400L polyisocyanurate foam is a cellular polymer supplied in bunstock form. It is ideal for applications in which a lightweight, high-density core material is needed. This product is easily fabricated into sheets and other shapes and is less brittle than conventional polyisocyanurate foams, for improved handling.

APPLICATIONS

Trymer Core PIR 400L foam is used extensively in composite panel applications. It has a low index compared to conventional polyisocyanurate foams, a feature that offers improved shear, tensile and flexural strengths, and allows better adhesion to facers using standard adhesives. The foam is also compatible with most thermoset resin adhesives, including vinyl esters and epoxies.

JM can provide general guidelines and recommendations for Trymer Core PIR 400L foam. Call 1-800-231-1024 or contact your local JM representative for details. Some typical applications include:

- Core material for insulated architectural and structural panels
- Core material for factory built panelized construction systems
- Insulation for shipping containers, trucks or railcars
- Core material for boats, containers, trucks, and railcar components

SIZE

Height: 14" (35.5cm)

Width: 48" (122 cm)

Length: 96" (244 cm)

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

ENVIRONMENTAL DATA

Trymer Core PIR 400L foam 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 Core PIR 400L foam is manufactured with hydrocarbon blowing agents, which have no ozone depletion potential.

PHYSICAL/CHEMICAL PROPERTIES

Trymer Core PIR 400L foam exhibits the properties and characteristics indicated in Table 1 when tested as represented. Like all cellular polymers, this product will degrade upon prolonged exposure to sunlight. A covering must be used to block ultraviolet radiation and prevent 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.

FIRE PROTECTION

Consideration should be given to the benefits of and the 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 Core PIR 400L foam requires care in handling. All persons who work with this material must know and follow the proper handling procedures. The current Material Safety Data Sheet (MSDS) and handling guide contain information on the safe handling, storage and use of this material. For a copy of the MSDS, call 1-800-231-1024, visit www.JM.com or contact your local JM representative.

FABRICATION/INSTALLATION

Trymer Core PIR 400L foam 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, JM recommends that qualified designers or consultants design the total system. Contact a local JM representative or access the literature library at www.JM.com for more specific instructions.

AVAILABILITY

Trymer Core PIR 400L foam is distributed through an extensive network of fabricators and distributors. For more information, call 1-800-231-1024.

TECHNICAL SERVICES

JM can provide technical information to help address questions when using Trymer Core PIR 400L foam. Technical personnel are available at 1-800-231-1024.

TRYMER® CORE PIR 400L
POLYISOCYANURATE FOAM INSULATION

PHYSICAL PROPERTIES OF TRYMER CORE PIR 400 L

Property & Test Method	Value
Density, ASTM D1622	4.1 lb/ft ³ (57.7 kg/m ³)
Compressive Strength, ASTM D1621	75 lb/in ² (517 kPa) parallel to rise
Compressive Modulus, ASTM D1621	1300 lb/in ² (8963 kPa) parallel to rise
Shear Strength, ASTM C273	40 lb/in ² (276 kPa) parallel to rise
Shear Modulus, ASTM C273	500 lb/in ² (3447 kPa) parallel to rise
Tensile Strength, ASTM D1623	75 lb/in ² (517 kPa) 3D average
Tensile Modulus, ASTM D1623	2400 lb/in ² (16547 kPa)
Flexural Strength, ASTM C203	100 lb/in ² (689 kPa)
Flexural Modulus, ASTM C203	3000 lb/in ² (20684 kPa)
Closed cell Content, ASTM D6226	95%
k-Factor, ASTM C518 75°F (24°C) mean temp	0.190 Btu•in/hr•ft ² •°F 0.027 W/m°C
R-value per Inch, ASTM C578, Aged 180 Days	5.3 hr•ft ² •°F/Btu 0.93 m ² •°C/W
Dimensional Stability, ASTM D2126	At -30°F (-34°C), for 7 Days: 0.02% At 158°F (70°C), 97% R.H., for 7 Days: -0.25% Change At 200°F (93°C), 97% R.H., for 7 Days: -1.47% Change
Water Absorption, ASTM C272	<0.7% by vol. after 24-hour immersion
Service Temperature	-297°F to 300°F (-183°C to 149°C)
Surface Burning Characteristics, ASTM E84	10 Flame Spread 90 Smoke Developed (up to 8" thickness)



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Technical specifications as shown in this literature are intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product. The physical and chemical properties of the product listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Regional Sales Office nearest you for current information.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit www.jm.com/terms-conditions or call (800)654-3103.