Johns Manville
A Berkshire Hathaway Company

TECHNICAL DATA SHEET

TRYMER® SUPERCEL PHENOLIC

HIGH-DENSITY PHENOLIC FOAM INSULATION

DESCRIPTION

TRYMER Supercel High Density is a closed-cell rigid phenolic foam insulation. This rigid insulation is supplied in the form of large buns for fabrication into pipe, curved segments, sheets, tank and vessel coverings, and other shapes for a variety of thermal insulation applications.

The bun dimension in the rise direction varies with density and is shown in the table on the next page

APPLICATIONS

TRYMER Supercel High Density Phenolic Insulation has very low (good) thermal conductivity, an exceptionally low flammability and the same -297°F to +257°F (-183°C to 125°C) temperature limits as standard density Trymer Supercel.

TRYMER Supercel High Density is primarily intended for use as pipe insulation in external support locations where higher compressive strength may be needed but can also be used in other applications where increased strength is required.

Consultation with design engineers/specifiers and possibly local code officials is recommended before installation.

SUPPORT DESIGN

For assistance with selecting the required density and strength of Trymer Supercel High Density Insulation for use in pipe supports, contact JM. Because of the critical design aspects present in many applications, JM recommends that qualified engineers specify the total system.

FABRICATION

TRYMER Supercel High Density Phenolic Insulation is specifically formulated for easy fabrication into many shapes, such as pipe coverings, valve and fitting covers, and others to meet specific design needs. Pipe shells should be cut so that the longitudinal dimension of the pipe shell comes from the 36.5” long (length) direction of the bun.

PHYSICAL PROPERTIES

TRYMER Supercel High Density Phenolic Insulation has the properties and characteristics shown in the table on the next page.

As with all cellular polymers, TRYMER Supercel High Density Insulation will degrade upon prolonged exposure to sunlight. A covering to block ultra-violet radiation and to protect the insulation from the elements or
physical abuse must be used to help prevent degradation in outdoor and most indoor applications.

ENVIRONMENTAL DATA

TRYMER Supercel High Density Insulation is specifically formulated to provide excellent thermal insulating performance without the use of chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC) blowing agents. In compliance with the Montreal Protocol and the Clean Air Act, TRYMER Supercel High Density Insulation is manufactured with hydrocarbon blowing agents, which have no ozone depletion potential (0 ODP).

JM recommends that all specifications require the insulation to have a 0 ODP.

SAFETY CONSIDERATIONS

TRYMER Supercel Insulation requires care in handling. All persons working with this material must know and follow the proper handling procedures. The current Material Safety Data Sheet (MSDS) and General Handling Recommendations for TRYMER contain information on the safe handling, storage and use of this material. For copies of these documents, visit the literature library at www.jm.com, call 1-800-231-1024 or contact your regional JM representative.

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TRYMER SUPERCEL PHENOLIC INSULATION: HIGH-DENSITY

Property	Test Method	3.75 PCF	5.0 PCF	7.5 PCF
Standard Specification	ASTM C1126, Type III	Complies	Complies	Complies
Color		Yellow/Pink	Green/Blue	Orange/Red
Density, min.	ASTM D1622	3.75 lb/ft^3 (60 kg/m^3)	5.0 lb/ft^3 (80 kg/m^3)	7.5 lb/ft^3 (120 kg/m^3)
Temperature Limits		-297°F to +257°F (-183°C to +125°C)	-297°F to +257°F (-183°C to +125°C)	-297°F to +257°F (-183°C to +125°C)
Compressive Strength	ASTM C1621	Parallel to Rise: 60 psi Length/Width: 45 psi	Parallel to Rise: 88 psi Length/Width: 71 psi	Parallel to Rise: 158 psi Length/Width: 188 psi
Thermal Conductivity, max. Btu•in/hr•ft^2•°F (W/m•°C)	EN 12667 (equivalent to ASTM C518)	@50°F Mean Temp:0.22 (0.032) @75°F Mean Temp:0.22 (0.032)	@50°F Mean Temp: 0.23 (0.033) @75°F Mean Temp: 0.23 (0.033)	@50°F Mean Temp: 0.24 (0.035) @75°F Mean Temp: 0.24 (0.035)
Bun Yield Dimensions in (mm)		Parallel to rise: 41.5 (1054) Length: 37 (940) Width: 27 (686)	Parallel to rise: 30 (762) Length: 37 (940) Width: 27 (686)	Parallel to rise: 20.7 (526) Length: 37 (940) Width: 27 (686
Closed Cell Content, Min	ASTM D6226	95%	95%	95%
Surface Burning Characteristics @ 3" Thick	ASTM E84	≤25 Flame Spread ≤50 Smoke Developed	≤25 Flame Spread ≤50 Smoke Developed	≤25 Flame Spread ≤50 Smoke Developed

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. This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of JM. JM assumes no legal responsibility for use or reliance upon this data. For information regarding specific applications of the product please contact JM.

Johns Manville

717 17th St.
Denver, CO 80202
(800) 231-1024
JM.com

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.

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