ITW INSULATION SYSTEMS

TRYMER™ Supercel Phenolic Insulation – High Density

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.

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).

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

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.

Support Design

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

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.itwinsulation.com, call 1-800-231-1024 or contact your regional ITW representative.

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Property & Units	Test Method	3.75 PCF	5.0 PCF	7.5 PCF
Color		Yellow/Pink	Green/Blue	Orange/Red
Density, minimum, lb/ft^3 (kg/m^3)	ASTM D1622	3.75 (60)	5.0 (80)	7.5 (120)
Temperature Limits, °F (°C)		-297 to +257 (-183 to +125)	-297 to +257 (-183 to +125)	-297 to +257 (-183 to +125)
Compressive Strength, psi (kPa)	ASTM C1621, Proc. A			
-Parallel to Rise		60	88	158
-Length/Width		45	71	188
Thermal Conductivity, maximum, Btu-in/hr-ft^2-°F (W/m-°C)	EN 12667 (equivalent to ASTM C518)			
-At 50°F mean temperature		0.22 (0.032)	0.23 (0.033)	0.24 (0.035)
-At 75°F mean temperature		0.22 (0.032)	0.23 (0.033)	0.24 (0.035)
Bun Yield Dimensions, in (mm)				
-Parallel to Rise		41.5 (1054)	30 (762)	20.7 (526)
-Length		37 (940)	37 (940)	37 (940)
-Width		27 (686)	27 (686)	27 (686)
Closed Cell Content, min, %	ASTM D6226	95	95	95
Surface Burning Characteristics[1] at 3" thick	ASTM E84			
-Flame Spread Index, max		≤25	≤25	≤25
-Smoke Developed Index, max		≤50	≤50	≤50

[1]This numerical flame spread data is not intended to reflect hazards presented by this or any other material under actual fire conditions.

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 ITW Insulation Systems. ITW Insulation Systems assumes no legal responsibility for use or reliance upon this data. For information regarding specific applications of the product please contact ITW Insulation Systems.

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