

DOW[®] STYROFOAM[™] XPS Pipe Insulation Billets



Technical Data Sheet

Product Name: Dow[®] STYROFOAM[™] PIB.

Manufacturer: Dow Chemical Midland, MI. Sold through *Polyguard Products*, Ennis, TX.

Product Description: *Dow XPS PIB* is a closed-cell thermal plastic, void free, seamless foam insulation billet designed for mechanical fabrication and manufacturing.

Application: STYROFOAM PIB insulation is designed for use on mechanical applications including but not limited to cold pipe, vessel and duct applications and is commonly installed on industrial refrigeration pipe applications, cold storage piping, ice rinks, chilled water and glycol. It is suitable for the following pipe application categories, cryogenic, light cryogenic, cold, chilled, ambient, and mild hot. It is the responsibility of the designer to specify the correct design criteria and select the proper STYROFOAM thickness.

Advantages:

- Blue Brand Recognition
- Sold through reputable fabricator network
- Seamless billets / No glue lines in billet
- Low friability
- Excellent moisture resistance
- Low permeability
- Great long term R-Value

US Values: Properties & Test Method	XPS PIB
Thermal Conductivity ASTM C518, btu-in/hr-ft ² -°F	.259 (75°F) .23(50°F) .17(0°F)
Compressive Strength ASTM D1621, psi, min	20
Density, ASTM D1622 lbs/cu ft.	1.6
Water Absorption, ASTM C272 % by volume (24 hr.)	0.5
Water Vapor Permeance ASTM E96, perms	1.0
Temperature Range	-300°F to 165°F
Coefficient of Linear Thermal Expansion, ASTM D696, in/in/°F	3.5 * 10 ⁻⁶
Surface Burning Characteristics, ASTM E84 Flame /Smoke Rating	5/165 up to 4" thick insulation
ASTM C578 Type XIII	Complies

Dimensions: 3 standard sizes:

- 7"x14"x108"
- 8"x16"x108"
- 10"x20"x108"

Custom lengths available upon request, contact *Polyguard Products* for details.

Installation: STYROFOAM™ PIB is designed specifically for ease of fabrication. The billets are seamless and cell structure is designed for both shop fabrication and field adjustment. STYROFOAM can easily be cut and formed in the field with an insulation knife. Specialty valves, fittings, and many other technical components should be manufactured by a fabricator. *Polyguard Products* has developed detailed installation guidelines to assist design and installation of STYROFOAM PIB.

Availability: STYROFOAM PIB are sold through *Polyguard Products* to an extensive fabricator network. For more information call Polyguard at 214-515-5000.

Technical Services: *Polyguard Products* can provide technical information and services pertaining to thickness calculations, design criteria & guidelines, installation recommendations, recommended system.

Typical Physical Properties: STYROFOAM PIB product exhibit typical physical properties indicated in above table when tested as represented.

Installation: *Polyguard Products* has developed detailed installation guidelines to assist in the design and installation of STYROFOAM PIB.

Environmental Data: STYROFOAM PIB is hydrochlorofluorocarbon (HCFC) free with zero ozone-depleting potential. STYROFOAM PIB is reusable in some applications.

Technical Data / Standards that Apply:

STYROFOAM PIB Insulation meets ASTM C578 Standard Specification for Rigid Cellular Polystyrene Thermal Insulation. Applicable ASTM standards include:

C518 Standard test method for steady – state thermal transmission properties by means of heat flow meter apparatus

D1621 Standard test method for compressive properties of thermal rigid cellular plastics

D1622 Standard test method for density of thermal rigid cellular plastics.

E96 Standard test method for water transmission of cellular plastics

C272 Standard test method for water absorption of cellular plastics

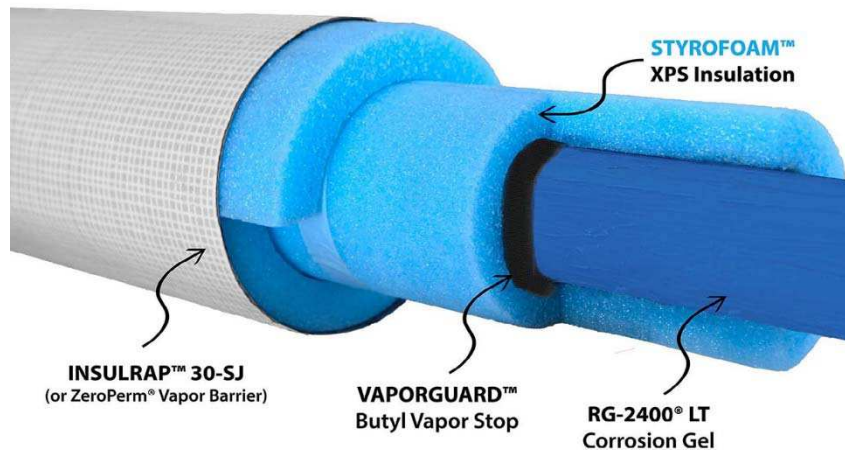
D696 Standard test method for coefficient of linear thermal expansion of plastics between -30C and +30C with a vitreous silica dilatometer.

E84 Standard test method for flame spread / smoke developed using tunnel burn test.

Filing Systems:

- www.polyguardmechanical.com
- www.polyguardproducts.com

The Perfect Cold System



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