STYROFOAM™ XPS PIPE INSULATION BILLET

Extruded Polystyrene | ASTM C578 Type XIII

Rigid thermoplastic foam manufactured by a proprietary extrusion process that forms a uniform, closed-cell structure. This structure, along with the naturally water-repellent nature of the resin, gives the product high compressive strength, low friability, and excellent resistance to water vapor and water absorption from freeze-thaw cycling. Non-dusting, non-irritating, and not a known food source for mold and mildew.

Applications

Used extensively in industrial and commercial piping applications. With a service temperature range of **–320°F to 165°F**, it is a preferred material for low-temperature systems — both for minimizing heat gain and preventing surface condensation. Maintains key insulating properties in high-humidity and high-moisture conditions.

Typical applications include:

- Ammonia refrigeration lines
- Freezer rooms & cold storage systems
- Chilled water piping
- Transport pipelines
- Refrigeration equipment
- Pharmaceutical plants
- Cryogenic systems

Available Billet Sizes

BILLET SIZE	HEIGHT × WIDTH
Standard	7" × 14"
Standard	8" × 16"
Standard	10" × 20"
Length	9 ft

Installation

Specifically formulated for easy fabrication into pipe coverings, valve and fitting covers, and other shapes to meet specific design needs. Because of the critical design aspects in many applications, qualified designers should be consulted for system design.

Physical Properties (ASTM C578, Type XIII)

PROPERTY	TEST METHOD	VALUE
Density	ASTM D1622	2 lb/ft³
Compressive Strength (parallel to rise)	ASTM D1621	20 psi
Thermal Conductivity (k-Factor) @ 75°F mean temp, aged 180 days	ASTM C518	0.259 Btu·in/hr·ft²·°F
Water Absorption	ASTM C272	0.5% volume (max)
Water Vapor Permeability	ASTM E96	2.0 perms/inch
Dimensional Stability (% change @ 158°F, 97% RH, 7 days)	ASTM D2126	2.0%
Service Temperature	—	–320°F to 165°F
Color	—	Charcoal Gray

¹ Thermal conductivity data reflects product aged and tested at 1" thickness, meeting ASTM C578 Type XIII requirements. ² For applications below –297°F, certain system design precautions may be necessary — consult for more information.

Environmental Data

Manufactured without the use of CFCs or HCFCs and only with low global warming potential (GWP) blowing agents. The product is recyclable and can be reused in many applications.

Fire Protection & Safety Considerations

Requires care in handling. All persons working with this material must know and follow proper handling procedures. As with all cellular polymers, the product will degrade upon prolonged exposure to sunlight — a covering to block ultraviolet radiation must be used to prevent degradation. Other coverings to protect the insulation from the elements may be required. Refer to the current Safety Data Sheet (SDS) for safe handling, storage, and use information.

Availability

Distributed through Bradco Supply's fabrication network. Contact us for custom pipe covering, fittings, and specialty shapes fabricated from Styrofoam™ XPS billets.

Disclaimer of Liability

Technical information contained herein is furnished without charge or obligation and is given and accepted at recipient's sole risk. Because conditions of use may vary and are beyond our control, neither the manufacturer nor Bradco Supply makes any representation about, and is not responsible or liable for, the accuracy or reliability of data associated with particular uses of any product described herein. Data shown are typical values obtained from representative production samples and may be used as a guide for design purposes but should not be construed as specifications. Specifications subject to change without notice. NO EXPRESSED OR IMPLIED WARRANTY OF ANY KIND, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS MADE.

BRADCO SUPPLY

1701 Southern Rd
Kansas City, MO 64120 USA
www.bradco.supply

Custom Mechanical Fabrication & Insulation Supply

Pipe • Fittings • Valves • Vessels
Specialty Insulation Products
Food & Beverage • Cold Storage • Industrial

Product Data Sheet | Styrofoam™ XPS Pipe Insulation Billet | Bradco edition • © 2026 Bradco Supply. All Rights Reserved. Styrofoam™ is a registered trademark of its respective owner.