SPECIALTY PRODUCTS & INSULATION CO.

FOAMGLAS® PIPE INSULATION

DESCRIPTION

Foamglas Insulation is a rigid, light weight material containing millions of individual, hermetically sealed cells, each a tiny dead-air insulating space. Because of this cellular structure, it cannot be penetrated by moisture, thus eliminating corrosive attack on piping and equipment. This material is an inherent vapor barrier, making costly and often imperfect additional vapor barriers unnecessary. Due to its organic nature, Foamglas will not deteriorate, burn or rot. It is also impervious to common acids and acid fumes. Foamglas always maintains its dimensional stability.

USES

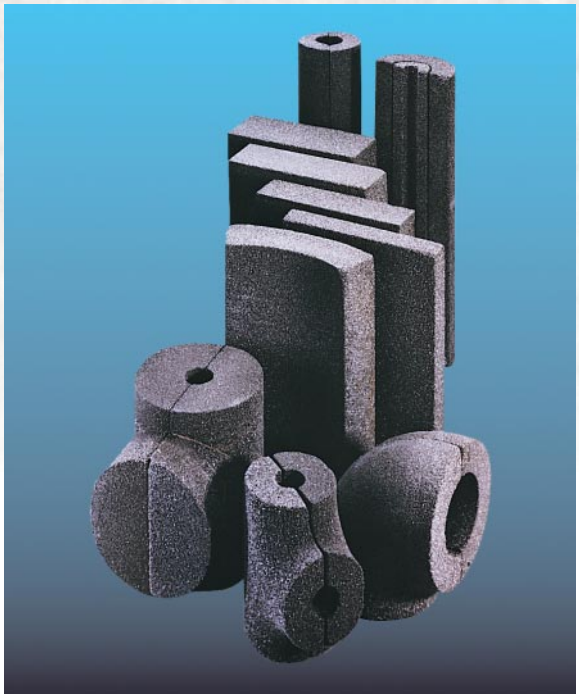
Foamglas Pipe Insulation is designed for piping, fittings, equipment and vessels operating in the temperature range of -450°F to +900°F. For systems requiring operating temperatures above 400°F, contact your local SPI Fabrication Center for system recommendations.

ADVANTAGES

High Compressive Service - Withstands pressures up to seven tons per sq. ft. (average, ultimate) without crushing. Will also support its own weight on vertical piping with no sagging.

Easy Application - Foamglas insulation is easily cut and fabricated into special shapes with conventional tools and may be applied and coated with a wide variety of commercially available adhesives and finishes.

Vapor Proof - Vapor cannot penetrate the closed glass cells of Foamglas.



PERFORMANCE

Density, lbs/cu ft	7.5
Thermal conductivity	
BTU/hr sq ft °F	
At 50°F Mean Temp.	.28
At 75°F Mean Temp.	.29
Compressive Strength	
(lbs/sq in)	90
Combustibility	Does not promote
Permeability, perm-inch	0.00
Capillarity	None

PHYSICAL AND THERMAL PROPERTIES

PHYSICAL PROPERTIES	USA	METRIC	SI	ASTM TEST
Absorption of moisture (% by volume)	0.2% Only moisture retained is that adhering to surface cells after immersion.			C240
Water-vapor permeability	0.00 perm-in	0.00 perm-cm		E 96
Acid resistance	Impervious to common acids & their fumes except hydrofluoric acid.			
Capillarity	None	None	None	
Combustibility	Noncombustible, will not burn.			E136
Composition	Pure glass, totally inorganic, contains no binder.			
Compressive strength Average, for standard material	90 psi Strength for flat surfaces capped with hot asphalt, different cappings will give different values.	7.0 kg/cm^2	689 kPa	C 165 C 240 C 552
Density, average	7.5 lb/ft^3	128 kg/m^3	128 kg/m^3	C 303
Dimensional stability	Excellent — does not shrink, swell or warp.			
Flexural strength block average	70 psi	5.6 kg/cm^2	552 kPa	C 203 C 240
Hygroscopicity	No increase in weight at 90% relative humidity.			
Linear coefficient of thermal expansion	5 x 10^{-6}/°F	8.6 x 10^{-6}/°C	8.6 x 10^{-6}/°K	E 228
Maximum service temperature	+900°F	+482°C	755°K	
Modulus of elasticity, approx.	1.3 x 10^5 psi	9,200 kg/cm^2	906 MPa	C 623
Shear strength	No reliable recognized test method for determination of the shear strength for cellular glass exists at this time. Where shear strength is a design criterion PCC should be contacted for recommendations.			
Specific heat	.18 Btu/1b•°F	.18 kcal/kg•°C	0.76 kJ/kgK	
Thermal conductivity	Btu-in/hr•ft^2•°F 0.28 @ 50°F 0.29 @ 75°F	kcal/m•h•°C 0.038 @ 0°C 0.039 @ 10°C	W/mK 0.044 @ 0°C 0.045 @ 10°C	C 177. C 518
Thermal diffusivity	.019 ft^2/hr	.0049 cm^2/sec`	4.9 x 10^{-7}m^2/Sec	

Technical data included herein is as provided by respective manufacturers.

Warranty Disclaimers and Liability Limitations. The purchaser / user is advised to consult with the appropriate professionals and to read the manufacturer's product information to determine the adequacy or appropriateness of the product for the use intended.

Refer to the back of the SPI invoice for SPI's Warranty Disclaimers and Liability Limitations. These provisions generally include, without limitation, a disclaimer of all warranties other than, to the extent assignable, an assignment of any manufacturers' warranties and limitation of remedies to repair or replacement.

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Please refer to SPI's "Sales and Service Center" directory for your nearest location, or visit www.spi-co.com/servicecenterdirectory.mv