

1000 Series Spin-Glas®
High Temperature Fiber Glass Board Insulation

Description

1000 Series Spin-Glas is a 3.0 pounds per cubic foot (48 kg/m³), semi-rigid board produced by a unique felting process that combines Spin-Glas fiber and controlled amounts of organic binder into an insulation with superior handling properties and insulating effectiveness at minimum cost.

Applications

For insulating furnaces, boilers, heated vessels, ducts, tanks and other heated equipment operating at temperatures up to 850°F (454°C).

Available Sizes

Furnished in board form only in thicknesses from 1" to 4" (25 mm to 102 mm) in 1/2" (13 mm) increments. Standard sizes available are 24" x 48", 24" x 96" and 48" x 96" (0.61 m x 1.22 m, 0.61 m x 2.44 m and 1.22 m x 2.44 m). Other sizes are available on special order.

Advantages

High Strength. Because of its unique fiber orientation and the latest advances in binder technology, 1000 Series Spin-Glas exhibits excellent handling properties during shipping and installation and can stand up to the rigors of heavy vibration when in use.

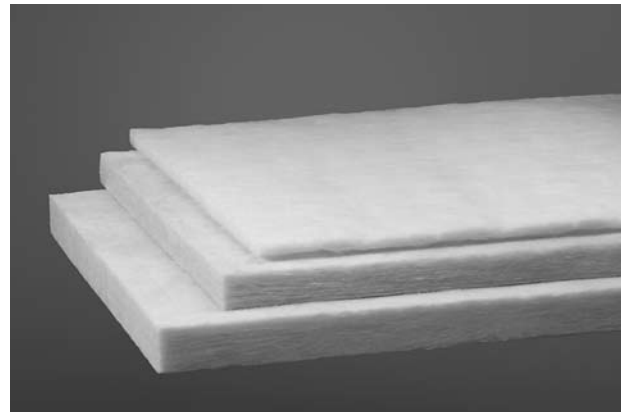
Easy Application. The firm, lightweight structure of this board makes possible the impaling of insulation directly on studs or clips, and permits use of labor saving, larger batt sizes.

Full Size Range. Wide variety of standard sizes eliminates trimming during installation, reducing application costs.

Excellent Thermal Performance. 1000 Series Spin-Glas can dramatically reduce heat loss in heated equipment applications because of its exceptionally low, dependable thermal conductivity.

Thermal Conductivity (k)

Mean Temperature	°F	75	300
	°C	24	149
Btu•in/(hr•ft ² •°F)		.23	.33
W/m•°C		.033	.048



Operating Temperature Limit: 850°F (454°C)

Qualifications for Use

1. 1000 Series Spin-Glas may be used to 850°F (454°C) with a maximum thickness of 6" (152 mm). Double-layer construction with staggered joints is recommended when equipment expansion is such that gaps begin to open between insulation sections (usually 400-600°F [204-316°C]).

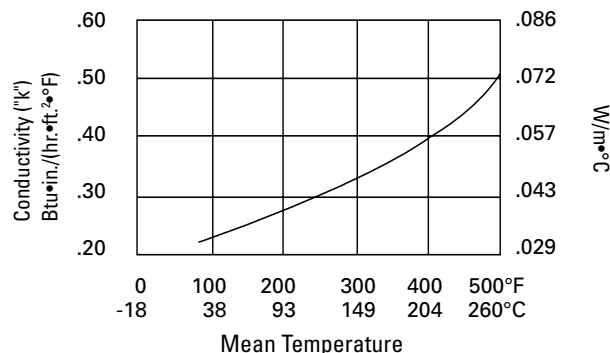
950°F (510°C) intermittent temperature exposure is acceptable for periods less than one hour as long as the product has been stabilized at 850°F (454°C) for at least 24 hours.

2. Initial Heat-Up

During initial heat-up to operating temperatures above 350°F (177°C) an acrid odor and some smoke may be given off as the organic binders used in the Spin-Glas insulation begin to decompose. When this occurs, caution should be exercised to ventilate the area well.

For applications above 650°F (343°C), 1000 Series Spin-Glas must be allowed to stabilize at 650°F (343°C) for at least 2 hours prior to heating up to 850°F (454°C). This applies only to the first heat up.

Thermal Conductivity (ASTM C 518)



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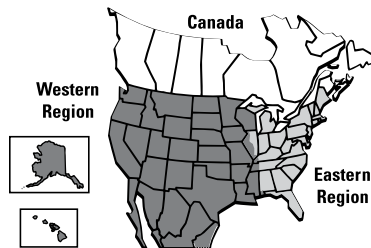
Specification Compliance (Request for certification must accompany purchase order.)

Government	Coast Guard	ASTM
MIL-I-22023D for Type I & II, Class 6 Material	164.009	C 612, Type II
HH-I-558B*		C 795
Form A, Classes 1, 2 and 3		E 84 Flame Spread - 25 or less
*Replaced by ASTM C 612		Smoke Developed - 50 or less
CAN/51-GP-10M		E 136 (noncombustible)
MIL-I-24244C		
NRC 1.36		

Sound Absorption Coefficients (ASTM C 423) (Type "A" Mounting)

Thickness		Frequency (Hz)						
(in)	(mm)	125	250	500	1000	2000	4000	NRC*
1.0	25	0.05	0.31	0.67	0.96	1.04	1.03	0.75
2.0	51	0.24	1.05	1.16	1.12	1.08	1.07	1.10
3.0	76	0.58	1.21	1.11	1.08	1.07	1.08	1.10
4.0	102	0.92	1.15	1.09	1.07	1.07	1.09	1.10

*Noise Reduction Coefficients - The average of the coefficients at 250, 500, 1000 and 2000 Hz expressed to the nearest integral multiple of 0.05.



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The physical and chemical properties of 1000 Series Spin-Glas® high temperature fiber glass board insulation 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. Numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by this or any other materials under actual fire conditions. Check with your Regional Sales Office to assure current information. **All Johns Manville products are sold subject to Johns Manville's Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville Limited Warranty and Limitation of Remedy, and information on other Johns Manville thermal insulations and systems, call (800) 654-3103.**

