Johns Manville
A Berkshire Hathaway Company

MECHANICAL INSULATION

1000 SERIES SPIN-GLAS®

HIGH-TEMPERATURE FIBERGLASS BOARD INSULATION

DATA SHEET

DESCRIPTION

1000 Series Spin-Glas insulation 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 ½" (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 insulation 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 insulation can dramatically reduce heat loss in heated-equipment applications because of its exceptionally low, dependable thermal conductivity.

THERMAL CONDUCTIVITY (K)

Mean Temp.	°F	75	300	
	°C	24	149	
Btu•in/(hr•ft²•°F)		0.23	0.33	W/m•°C
		0.033	0.048	

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

QUALIFICATIONS FOR USE

1. 1000 Series Spin-Glas insulation 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. 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 insulation must be allowed to stabilize at 650°F (343°C) for at least two hours prior to heating up to 850°F (454°C). This applies only to the first heat-up.

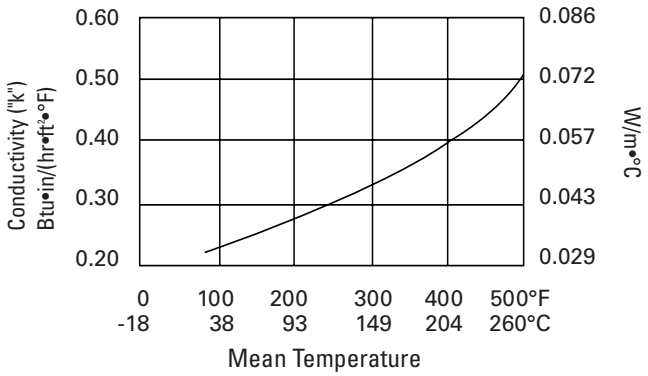
RECYCLED CONTENT

18%

CERTIFIED RECYCLED CONTENT SCS GLOBAL SERVICES
AVERAGE 18% RECYCLED CONTENT POST-CONSUMER

SCS CERTIFIED Average 25% Recycled Content
5% Pre-consumer
20% Post-consumer

THERMAL CONDUCTIVITY (ASTM C518)



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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	164.109/37/0	C612, Type II
MIL-DTL-32585		
HH-I-558B*		C795
Form A, Classes 1, 2 and 3		E84 Flame Spread – 25 or less
*Replaced by ASTM C612		Smoke Developed – 50 or less
CAN/51-GP-10M		E136 (noncombustible)
MIL-DTL-24244D		
NRC 1.36		

SOUND ABSORPTION COEFFICIENTS (ASTM C423) (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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Denver, CO 80217
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Fax: 303-978-4661

The physical and chemical properties of 1000 Series Spin-Glas® high-temperature fiberglass board listed herein 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 these or any other materials under actual fire conditions.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit www2.jm.com/terms-conditions or call (800) 654-3103.

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