

Tuf-Glas™
HVAC Equipment Liner

Description

Tuf-Glas™ Fiber Glass Insulation is a lightweight, highly resilient, blanket-type insulation made from borosilicate glass fibers bonded with a thermosetting resin. Tuf-Glas is designed to provide a rotary product with good core strength.

Thermal and Acoustical Solution

Tuf-Glas can be used in a variety of applications that require good thermal and acoustical efficiency in a minimal space.

Appliance and Equipment Applications

The glass fibers in Tuf-Glas insulation are noncombustible and non-hygroscopic. Tuf-Glas does not support fungi or vermin, and is unaffected by oil, grease, and most acids.

Tuf-Glas meets typical industry standard for tensile and core strength, which makes the product resistant to damage during lamination and installation. Because of its resiliency and flexibility, Tuf-Glas blankets resist settling, breakdown, sagging from vibration, and damage from impact. Tuf-Glas insulation conforms easily around corners and curved surfaces and is readily cut in die presses or with a knife.

Available Forms

See Tuf-Glas Purchase Guide, TG-IS-200 for specific details.

Custom Fabrications

A Johns Manville Approved Fabricator can develop and apply facings for airstream applications as well as fabricate Tuf-Glas to meet your specific service conditions and performance requirements.

Fabricated Products

Johns Manville Tuf-Glas Equipment Insulation is manufactured to specific customer width requirements. Contact your Johns Manville sales representative for limitations. Die-cut or fabricated pieces are generally supplied by one of the strategically located Johns Manville fabricators who are specially equipped to provide prompt service to manufacturers in their area.



Applications

- HVAC Equipment
 - Fan Coils
 - Furnaces
 - Air Conditioners
- Appliances
- Other Equipment

Properties

- Good Thermal Efficiency
- Good Acoustical Performance
- Good Tensile Strength
- Good Core Strength
- Uniform Density Distribution
- Excellent Dimensional Uniformity
- Ease of Handling

Specifications

Temperature Limit	350°F (177°C) (unfaced)
Meets Requirements of ASTM C 1071, Type I, Rolls (with the exception of air erosion resistance)	
Fire Hazard Classification (FHC)	25/50 Flame Spread/Smoke Developed Ratings (per ASTM E 84, UL 723, and CAN/ULC S102-M88). Labels supplied when requested on order. Meets NFPA 90A and 90B.

Density*

pcf	kg/m ³
1.3	21
1.4	22
1.6	26

* Density values are nominal. The density is adjusted to meet the specified thermal conductivity.

Thermal Conductivity (k) per ASTM C 618

Density	Mean Temp. @ 75°F (24°C)		
	pcf	kg/m ³	Btu•in/(hr•ft ² •°F)
1.3	21	0.250	0.036
1.4	22	0.245	0.035
1.6	26	0.240	0.035

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Acoustical Performance

Sound Absorption Coefficients*

Type "A" Mounting

Density		Thickness		Frequency (Hz)						
pcf	kg/m ³	in	mm	125	250	500	1000	2000	4000	NRC**
1.3	21	1	25	0.09	0.25	0.55	0.73	0.84	0.99	0.60
1.4	22	¾	19	0.09	0.19	0.41	0.65	0.78	0.91	0.50
1.6	26	¾	19	0.11	0.29	0.48	0.65	0.78	0.87	0.55
1.6	26	1	25	0.12	0.30	0.59	0.79	0.91	0.94	0.65

* Tested in accordance with ASTM C 423 and ASTM E 795.

** Noise Reduction Coefficient



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Eastern Region

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Defiance, OH 43512
(800) 426-2435
Fax: (800) 329-7397

Western Region & Canada

P.O. Box 625005
Littleton, CO 80162
(800) 293-3393
Fax: (800) 741-0183

Technical Information

(800) 458-7198

The physical and chemical properties of Tuf-Glas™ Insulation 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. Check with the Regional Sales Office nearest you to assure current information. **All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions including Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions, Limited Warranty and Limitation of Remedy, and information on other Johns Manville thermal insulations and systems, call (800) 654-3103.**

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