

**DESCRIPTION**

800 Series Spin-Glas® duct and equipment insulation is manufactured from inorganic glass fibers bonded together with thermosetting resin. This rigid fiberglass board insulation is available plain or faced in a variety of densities for use on systems that operate up to 450°F (232°C). For faced products, surface temperature should not exceed 150°F (66°C). AP, FSK, or Ultra vapor retarder-faced material meets the requirements of NFPA 90A and 90B. Types 813, 814, 815 and 817 provide neat square corners for an excellent finished appearance on duct and equipment systems. Spin-Glas insulation can be readily cut with an ordinary knife and secured with mechanical fasteners and/or adhesives.

**APPLICATIONS**

800 Series Spin-Glas insulation can be used in plain or faced form to insulate heating ducts and equipment. Faced 800 Series Spin-Glas insulation is designed for systems that operate below ambient temperatures where vapor barrier protection is required. 800 Series Spin-Glas insulation is ideal for application in commercial and industrial heating, air conditioning, power and process equipment. These products are not designed for use inside air distribution duct work or equipment where the insulation will be directly exposed to an airstream. On systems operating below ambient temperatures, all seams should be tightly sealed with quality ASJ, foil or FSK tapes depending on the desired finish.

**SPECIFICATION COMPLIANCE**

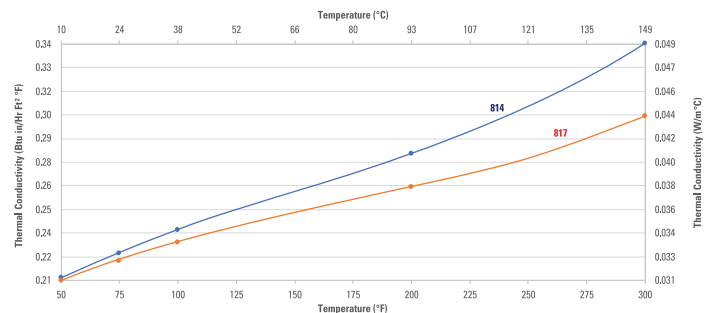
Type	812	813	814	815	817
ASTM C612, Type IA		X	X	X	X
ASTM C612, Type IB		X	X	X	X
ASTM C533 Type III (Plain material only)	X				
ASTM E84, UL 723, NFPA 255, CAN/ULC S102-M88, FHC 25/50, Surface Burning Characteristics (Composite)	X	X	X	X	X
NRC 1.36, ASTM C795, MIL-DTL-24224D* (Cleburne material only)			X	X	X
Canada: CGSB 51-GP-10M	X	X	X	X	X
ASTM C1136			Type I: AP Facing		
(Replaces HH-B-100B, Type I & II)			Type II: AP, FSK, & Ultra		
NFPA 90A & 90B, FHC 25/50 & limited combustibility					

**PHYSICAL PROPERTIES**

Unfaced Temp Limit (Max)	450°F (232°C)
Faced Temp Limit (Max)	Unfaced Side: 450°F (232°C) Faced Side: 150°F (66°C)
Moisture Sorption	Less than 5.0% by weight
Alkalinity	Less than 0.6% expressed as Na <sub>2</sub> O
Corrosivity	Does not accelerate
Odor	None
Shrinkage	None
Resistance to fungi and bacteria	Does not breed or promote
Moisture Vapor Transmission	0.02 perms max: FSK, AP, & Ultra



**Operating Temperature Limit: Up to 450°F (232°C)**

**THERMAL CONDUCTIVITY ("K")**


Type	812	813	814	815	817
"k" @ 75°F mean	0.24	0.23	0.23	0.22	0.22
"k" @ 24°C mean	0.035	0.033	0.033	0.032	0.032

**THERMAL PERFORMANCE (R-VALUES)**

Type	Thickness						
	1"	1½"	2"	2½"	3"	3½"	4"
812		6.3	8.3	10.4	12.5	14.6	16.7
813	4.3	6.5	8.7	10.9	13.0	15.2	17.4
814	4.3	6.5	8.7	10.9	13.0	15.2	17.4
815	4.5	6.8	9.1	11.4			
817	4.5	6.8	9.1				

**FACING INFORMATION**

**FSK Reinforced Foil and Paper (Foil-Scrim-Kraft).** Aluminum foil reinforced with fiber glass yarn and laminated with fire-resistant adhesive to kraft paper.

**AP (All Purpose).** The AP or All Purpose facing is an ASJ comprised of white kraft bonded to aluminum foil, reinforced with fiber glass yarn and laminated with fire-resistant adhesive to kraft paper.

**Ultra (Polypropylene-Scrim-Polyester).** The Ultra facing is a white, poly-top ASJ. It is comprised of a polypropylene exterior, reinforced with fiber glass yarn and a metalized polyester inner layer. This facing has no paper components.

**SOUND ABSORPTION COEFFICIENTS (ASTM C423 - TYPE "A" MOUNTING)**

Type (Plain)	Thickness		Frequency (Hz)						
	in	mm	125	250	500	1000	2000	4000	NRC
812	1.0	25	0.07	0.24	0.63	0.87	1.00	1.02	0.70
	2.0	51	0.24	0.68	1.10	1.13	1.10	1.07	1.00
813	1.0	25	0.08	0.27	0.69	0.95	1.05	1.02	0.75
	2.0	51	0.19	0.88	1.15	1.14	1.10	1.07	1.05
814	1.0	25	0.06	0.29	0.75	0.99	1.04	1.02	0.75
	2.0	51	0.24	1.00	1.11	1.08	1.06	1.05	1.05
815	1.0	25	0.03	0.32	0.80	1.04	1.05	1.05	0.80
	2.0	51	0.27	0.91	1.11	1.09	1.09	1.09	1.05
817	1.0	25	0.10	0.35	0.85	1.04	1.05	1.03	0.80
	2.0	51	0.38	0.93	1.10	1.07	1.07	1.07	1.05

**AVAILABLE DENSITIES, THICKNESSES AND FACINGS**

Type	Density		Thickness (in ½" [13mm] increments)			
			Faced (FSK/AP/Ultra)		Plain	
	pcf	kg/m <sup>3</sup>	in	mm	in	mm
812*	1.50	24	-	-	1½-4	38-102
813	2.25	36	1-4	25-102	1-4	25-102
814	3.00	48	1-4	25-102	1-4	25-102
815	4.25	68	1-2½	25-64	1-2½	25-64
817	6.00	96	1-2	25-51	1-2	25-51

Standard Sheet Size: 24" x 48" (610 mm x 1219 mm). Non standard sizes available upon request.

\*Available from Defiance, OH, only.

**GOVERNMENT CERTIFICATION**

When ordering material to comply with any government specification or any other listed specification, a statement of that fact must appear on the purchase order. Government regulations and other listed specifications require specific lot testing and prohibit the certification of compliance after shipment has been made. There may be additional charges associated with specification compliance testing.

**ISO 9001:2015 CERTIFICATION**

Johns Manville mechanical insulation products are designed, manufactured and tested in our own facilities, which are certified and registered to stringent ISO 9001:2015 series quality standards. This certification, along with regular, independent third-party auditing for compliance, is your assurance that Johns Manville products deliver consistent high quality.

**RECYCLED CONTENT**

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Denver, CO 80202  
800-654-3103  
www.JM.com

**North American Sales Offices, Insulation Systems****Eastern Region and Canada**

P.O. Box 158  
Defiance, OH 43512  
800-334-2399  
Fax: 419-784-7866

**Western Region**

P.O. Box 5108  
Denver, CO 80217  
800-368-4431  
Fax: 303-978-4661

Technical specifications as shown in this literature are intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product. The physical and chemical properties of 800 Series Spin-Glas 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. Any references to numerical flame spread or 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 [www.jm.com/terms-conditions](http://www.jm.com/terms-conditions) or call (800)654-3103.**