

800 Series Spin-Glas®
Fiber Glass Duct and Equipment Insulation

Description

800 Series Spin-Glas duct and equipment insulation is manufactured from inorganic glass fibers bonded together with thermosetting resin. 800 Series Spin-Glas 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 or FSK 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.

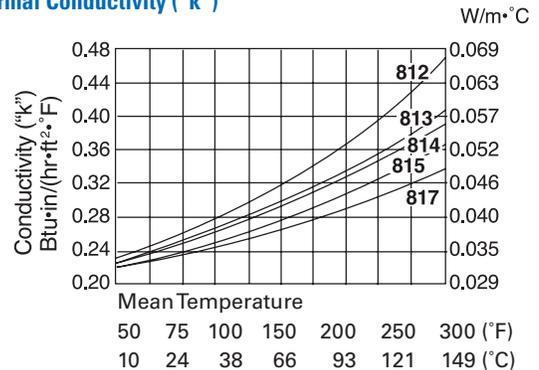
Specification Compliance

| Type | 812 | 813 | 814 | 815 | 817 |
|---------------------------------------------------------|-----------------|-----|-----|-----|-----|
| ASTM C612, Type IA | | X | X | X | X |
| ASTM C612, Type IB | | X | X | X | X |
| ASTM C553, Type III (Plain material only) | X | | | | |
| HH-I-558C (Replaces HH-I-558B, Form B, Type I, Class 7) | X | X | X | 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 | | | | | |
| MIL-I-24244C | | | | | |
| ASTM C795 (Cleburne Material Only) | | | X | X | X |
| State of California, Title 20 | X | X | X | X | X |
| Canada: CGSB 51-GP-10M | X | X | X | X | X |
| ASTM C1136, Type I | AP Facing | | | | |
| Type II | AP & FSK Facing | | | | |
| (Replaces HH-B-100B, Type I & II) | | | | | |
| NFPA 90A & 90B, FHC 25/50 & Limited Combustibility | | | | | |
| ISO 9000 (ANSI/ASQC 90) Certification | | | | | |



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 |

Physical Properties

| | |
|--------------------------------------|-----------------------------------------------|
| Temperature limit (maximum) | |
| Unfaced | 450°F (232°C) |
| Faced—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 ₂ O |
| Corrosivity | Does not accelerate |
| Odor | None |
| Shrinkage | None |
| Resistance to fungi and bacteria | Does not breed or promote |
| Moisture vapor transmission—FSK & AP | 0.02 perms max. |

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Available Densities, Thicknesses and Facings

| Type | Density | | Thickness (in ½" [13 mm] increments) | | | | |
|------|---------|-------|--------------------------------------|------|--------|-------|--------|
| | | | Faced | | | Plain | |
| | pcf | kg/m³ | | in | mm | in | mm |
| 812* | 1.50 | 24 | — | — | — | 1½–4 | 38–102 |
| 813* | 2.25 | 36 | FSK, AP | 1–4 | 25–102 | 1–4 | 25–102 |
| 814 | 3.00 | 48 | FSK, AP | 1–4 | 25–102 | 1–4 | 25–102 |
| 815 | 4.25 | 68 | FSK, AP | 1–2½ | 25–64 | 1–2½ | 25–64 |
| 817 | 6.00 | 96 | FSK, AP | 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.

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 |

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 facing is white kraft bonded to aluminum foil, reinforced with fiber glass yarn. The kraft paper is laminated with a fire-resistant adhesive that minimizes the possible corrosion of the foil.

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.



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The physical and chemical properties of 800 Series Spin-Glas® fiber glass duct and equipment 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 ensure 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 insulation and systems, call (800) 654-3103.**