



HIGH TEMPERATURE PANEL

Temperature Limit: 1000° F (538° C)

DESCRIPTION

High Temperature Panel is a semi-rigid, thermal insulation board (2.4 PCF, 38.4 kg/m³) made from highly resilient, inorganic glass fibers, bonded by high-temperature, thermosetting resin.

SUSTAINABILITY

Manson Insulation products with ECOSE® Technology are made using our patented, bio-based binder - a smarter alternative to the phenol/formaldehyde (PF) binder traditionally used in fiberglass products. The bio-based binder holds our product together and gives the product its unique appearance.

All of our products are formaldehyde-free and made from sustainable resources, such as recycled glass and sand. And we're proud to be putting glass bottles back to work rather than into landfills. Our products are made with a minimum of 50% recycled glass—totaling an average of 26 million bottles each month.

APPLICATION

Manson Insulation High Temperature Panel is suitable for use in industrial heating applications up to 1000° F (538° C), such as high-temperature panel systems for ducts and precipitators, boilers, vessels, and industrial ovens. It is ideal for use in metal mesh blankets.

INDOOR AIR QUALITY

- UL Environment
 - GREENGUARD Certified
 - GREENGUARD Gold Certified
 - Validated to be Formaldehyde-Free
- EUCEB certified

SPECIFICATION COMPLIANCE

- ASTM C612; Type IA, Type IB, Type II and III, Category I
- ASTM C1139; Type I, Grade 5, Type II, Grade 5 (withdrawn 2019)

- ASTM C795
- MIL-I-24244
- NRC Reg. Guide 1.36
(Certification needs to be specified at the time of the order)
- USCG 164.109/A15/0

FIBERGLASS AND MOLD

Fiberglass insulation will not sustain mold growth. However, mold can grow on almost any material when it becomes wet and contaminated. Carefully inspect any insulation that has been exposed to water. If it shows any sign of mold, it must be discarded. If the material is wet but shows no evidence of mold, it should be dried rapidly and thoroughly. If it shows signs of facing degradation from wetting, it should be replaced.

NOTES

The chemical and physical properties of this product represent average values determined in accordance with accepted test methods. The data is subject to normal manufacturing variations. The data is supplied as a technical service and is subject to change without notice. References to numerical flame spread ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

Check with your Manson Insulation Area Manager to ensure information is current.

TECHNICAL DATA

PROPERTY (UNIT)	TEST	PERFORMANCE
Corrosiveness	ASTM C665	Does not accelerate corrosion of steel
Corrosion	ASTM C1617	Pass
Maximum Service Temperature	ASTM C411	1000° F (538° C)
Water Vapor Sorption (by weight)	ASTM C1104	Less than 5%
Mold Growth	ASTM C1338	Pass
Surface Burning Characteristics (flame spread/smoke developed)	ASTM E84, UL 723, CAN/ULC S102	UL/ULC Classified FHC 25/50

APPLICATION & SPECIFICATION GUIDELINES

Precaution

- During initial heat-up to operating temperatures above 350° F (177° C), a slight odor and some smoke may be given off as a portion of the bonding material used in the insulation begins to undergo a controlled decomposition.
- If natural convection is not adequate in confined areas, forced ventilation should be provided in order to protect against any harmful fumes and vapors that might be generated.

Storage

- Protect material from water damage or other abuse. Cartons are not designed for outside storage. Vacuum packaged material can be stored outside if care is taken not to puncture the polybag.

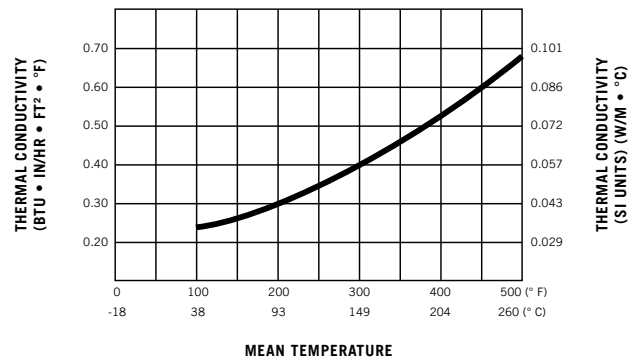
Preparation

- Apply the product on clean, dry surfaces.

Application

- All insulation joints must be firmly butted. Mount flush against surfaces to 1000° F (538° C) or use in panels mounted away from operating surface.
- High Temperature Panel is designed to be applied over welded pins and/or studs up to ½" (13 mm) in diameter. The board is to be held in place by speed washers, tension clips or metal mesh reinforcement.
- Installation method should not compress material beyond maximum of 5% at any point.
- Pins and studs shall be located a maximum of 4" (102 mm) from each edge and spaced no greater than 16" (406 mm) on center.
- In temperatures over 550° F (288° C) and designed thickness over 3" (76 mm) dual layer application with staggered joints is recommended. Install thickness recommended by Manson Insulation or NAIMA 3E Plus program.
- Finish surface with metal cover, or with insulating cement and canvas.

THERMAL EFFICIENCY | ASTM C177



MEAN TEMPERATURE	K	K(SI)
100° F (38° C)	0.25	0.036
200° F (93° C)	0.32	0.046
300° F (149° C)	0.40	0.063
400° F (204° C)	0.52	0.075
500° F (260° C)	0.68	0.098

FORMS AVAILABLE

THICKNESS	WIDTH	LENGTH
1" (25 mm)	24" (610 mm) and 48" (1219 mm)	24" (610 mm) to 120" (3048 mm)
1½" (38 mm)		
2" (51 mm)		
2½" (64 mm)		
3" (76 mm)		
3½" (89 mm)		
4" (102 mm)		

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