



## HIGH TEMPERATURE BATT & HD BLANKET

Temperature Limit: 1000° F (538° C)

### DESCRIPTION

High Temperature Batt & HD Blanket are semi-rigid thermal insulation products (1.6 PCF, 25.6 kg/m<sup>3</sup>), made from highly resilient, inorganic glass fibers, bonded by high-temperature thermosetting resin.

### ECOSE® TECHNOLOGY

ECOSE Technology is a revolutionary binder chemistry that enhances the sustainability of our products. The “binder” is the bond that holds our fiberglass product together and gives the product its shape and brown color. ECOSE Technology is a plant-based, sustainable chemistry that replaces the phenol/formaldehyde (PF) binder traditionally used in fiberglass products. Products using ECOSE Technology are formaldehyde-free and have reduced global warming potential when compared to our products of the past.

### SUSTAINABILITY

Manson Insulation’s products used for thermal insulating purposes recover the energy that it took to make them in just hours or days, depending on the application. Once installed, the product continues to save energy and reduce carbon generation as long as it is in place.

Fiberglass insulation with ECOSE Technology contains three key ingredients:

- Recycled glass content, verified annually by UL Environment
- Sand, one of the world’s most abundant resources
- Our green chemistry initiative ECOSE Technology, which is validated to be formaldehyde-free

### APPLICATION

Manson Insulation High Temperature Batt & HD Blanket are used in high-temperature marine applications, industrial furnaces, boilers, vessels, and industrial ovens where light-weight insulation is needed or flexible and/or semi-rigid high-temperature insulation products are needed for irregular surfaces.

### PRODUCT FEATURES

#### UL Environment

- GREENGUARD certified
- GREENGUARD Gold certified
- Validated to be formaldehyde-free

#### EUCEB

- Tested and certified to meet EUCEB requirements

### SPECIFICATION COMPLIANCE

#### In U.S.

- ASTM C1139 replaces MIL-I-22023D; Type I Grade 3, Type 2 Grade 3
- ASTM C553; Type I, II, V, VI

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

### CAUTION

Fiberglass may cause temporary skin irritation. Wear long-sleeved, loose-fitting clothing, head covering, gloves and eye protection when handling and applying material. Wash with soap and warm water after handling. Wash work clothes separately and rinse washer. A disposable mask designed for nuisance type dusts should be used where sensitivity to dust and airborne particles may cause irritation to the nose or throat.

### 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 Manson Insulation High Temperature Batt & HD Blanket 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.

## 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. Protect from welding sparks and open flame. The material may be stored outside if the packaging is not damaged.

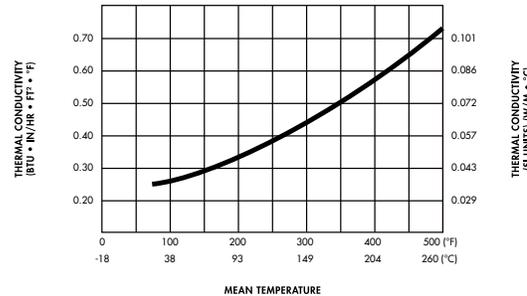
### Preparation

- Apply the product on clean, dry surfaces.

### Application

- There is no heat-up cycle required for Manson Insulation High Temperature Batt & HD Blanket.
- The product should be secured with welded pins or studs and covered with sheet metal. An alternate method entails covering the insulation with a metal mesh and insulating cement, canvassing and painting.
- Care should be taken to avoid over compressing the insulation with the retaining washer.
- 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.
- For application of Manson Insulation High Temperature Batt & HD Blanket over 500° F (260° C), double layer application is recommended with staggered joints.
- When using the products at 1000° F (538° C), it is recommended that no more than 6" (152 mm) thickness should be used. For thicknesses in excess of 6", contact your Manson Insulation Area Manager.

## THERMAL EFFICIENCY | ASTM C177



MEAN TEMPERATURE	K	K(SI)
100° F (38° C)	0.24	0.035
200° F (93° C)	0.33	0.048
300° F (149° C)	0.44	0.063

## TECHNICAL DATA

PROPERTY (UNIT)	TEST	PERFORMANCE
Corrosiveness	ASTM C665	Does not accelerate corrosion of steel
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

## HT BATT FORMS AVAILABLE

THICKNESS	WIDTH	LENGTH
1½" (38 mm)	24" (610 mm)	48" (1219 mm)
2" (51 mm)		
2½" (64 mm)		
3" (76 mm)		
3½" (89 mm)		
4" (102 mm)		

## HD BLANKET FORMS AVAILABLE

THICKNESS	WIDTH	LENGTH
1½" (38 mm)	48" (1,219 mm)	120 (36.6 m)
2" (51 mm)		80 (24.4 m)
2½" (64 mm)		70 (21.3 m)
3" (76 mm)		60 (18.3 m)
3½" (89 mm)		50 (15.2 m)
4" (102 mm)		40 (12.2 m)