



Performance+

Elevated Temperature Blanket 1000° with ECOSE® Technology

Product-Data-Sheet

Description

Performance+® Elevated Temperature Blanket 1000° is a lightweight, thermal insulation blanket made from highly resilient, inorganic glass fibers bonded with ECOSE® Technology.

Application

- Industrial heating equipment up to 1000° F (538° C) such as industrial furnaces and marine applications.
- Applications where lighter-weight insulation or flexible high-temperature insulations are needed for curved and irregular surfaces.

Specification Compliance

U.S.

- ASTM C1139 Type I Grade 2, Type II Grade 2 (withdrawn 2019)
 - ASTM C553; Type I, II, V
 - Conformity for Marine Equipment IMO 1408
 - MIL-DTL-32585; Type 1, Form 2, Facing A
 - USCG 164.109/18/1
 - UL/ULC Classified (UL 723)
- ASTM C795, MIL-I-2424, NRC Reg. Guide 1.36 (Certification needs to be specified at time of order)

Canada

- CAN/ULC S102

Indoor Air Quality

- Asthma & Allergy Friendly® Certified
- Verified Healthier Air™
- UL Environment
 - GREENGUARD Certified
 - GREENGUARD Gold Certified
 - Validated to be Formaldehyde-Free
- Does not contain polybrominated diphenyl ethers (PBDE) such as: Penta-BDE, Octa-BDE or Deca-BDE
- EUCEB Certified

Certifications



The Asthma & Allergy Friendly® Certification Mark is a Registered Certification Mark of the Asthma Allergy Foundation of America (AAFA) and Allergy Standards Ltd (ASL). Verified Healthier Air™ is a trademark of Airmid Healthgroup. USGBC® and the related logo are trademarks owned by the U.S. Green Building Council® and are used with permission.

Contractor: _____

Job: _____

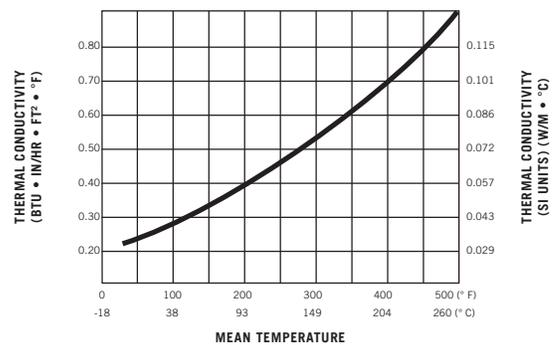
Date: _____

Technical Data

| Property (Unit) | Test | Performance |
|-------------------------------------------------------------------|--------------------------------|----------------------------------------|
| Corrosiveness | ASTM C665 | Does not accelerate corrosion of steel |
| Corrosion | ASTM C1617 | Pass |
| Water Vapor Sorption (by weight) | ASTM C1104 | Less than 5% |
| Maximum Service Temperature | ASTM C411 | 1000° F (538° C) |
| 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 |

Thermal Conductivity | ASTM C177

| Mean Temperature | k | k(SI) |
|------------------|------|-------|
| 100° F (38° C) | 0.28 | 0.040 |
| 200° F (93° C) | 0.38 | 0.055 |
| 300° F (149° C) | 0.52 | 0.075 |
| 400° F (204° C) | 0.70 | 0.101 |
| 500° F (260° C) | 0.90 | 0.130 |



Standard Sizes | Rolls

| Density | Thickness | Width | Length |
|-------------------------|-------------|-------------------|---------------|
| 1.1 PCF (17.6 kg/m³) | 1" (25 mm) | 48" (1,219 mm) | 75' (22.90 m) |
| | 2" (51 mm) | | 75' (22.90 m) |
| | 3" (76 mm) | | 50' (15.20 m) |
| | 4" (102 mm) | | 40' (12.20 m) |

Made-To-Order Sizes

| Density | Thickness | Width | Length |
|-------------------------|-------------|---------------------------------------------------------|--------|
| 1.1 PCF (17.6 kg/m³) | 1" (25 mm) | 24" (610 mm) 36" (914 mm) 48" (1,219 mm) | Custom |
| | 1½" (38 mm) | | |
| | 2" (51 mm) | | |
| | 2½" (64 mm) | | |
| | 3" (76 mm) | | |
| | 3½" (89 mm) | | |
| | 4" (102 mm) | | |

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.
- 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.
- Pins and washers shall be located a maximum of 4" (102 mm) from each edge and spaced no greater than 16" (406 mm) on center.
- Care should be taken to avoid over compressing the insulation with the retaining washer.
- For application over 450° F (232° C), double layer application is recommended.

Check with your Knauf Territory Manager to ensure information is current.

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.

Consult with or follow local building and energy codes to determine appropriate R-values and need for and placement of a vapor retarder.

Knauf Insulation, Inc.

One Knauf Drive
Shelbyville, IN 46176

Technical Support

Phone: (317) 398-4434 Option 6

info.us@knaufinsulation.com

www.knaufnorthamerica.com

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.

This product is covered by one or more U.S. and/or other patents.

See patent www.knaufnorthamerica.com/patents

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