



Performance+®

Elevated Temperature Board 1000° with ECOSE® Technology

Product-Data-Sheet

Description

Performance+® Elevated Temperature Board 1000° is a lightweight, semi-rigid, boardlike insulation made from highly resilient, inorganic glass fibers bonded with ECOSE® Technology.

Application

- Boiler walls
- Hot precipitators
- Hot ductwork
- Cylindrical tanks
- Prefabricated panel systems towers
- Stacks
- Industrial ovens

Specification Compliance

U.S.

- Conformity for Marine Equipment IMO 1408
- ASTM C612; Type IA, IB, II and III; Category I
- ASTM C1139; Type I Grade 5, Type II Grade 5 (withdrawn 2019)
- USCG 164.109/15/1
- MIL-DTL-32585; Type I, Form I, Facing A
- UL/ULC Classified (UL 723)

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

Canada

- ULC Classified
- 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

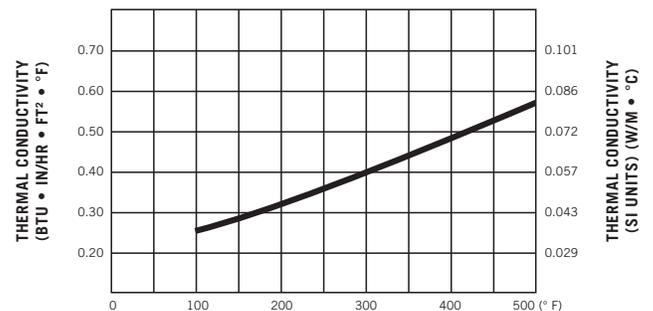
Property (Unit)	Test	Performance
Corrosiveness	ASTM C665	Does not accelerate corrosion of steel
Corrosion	ASTM C1617	Pass
Water Vapor Sorption (by weight)	ASTM C1104	Less than 5%
Maximum Service Temperature	ASTM C411	1000° F (538° C)
Mold Growth	ASTM C1338	Pass
Surface Burning Characteristics (flame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

Forms Available

Density	Thickness	Width	Length
2.8 PCF (44.9 kg/m ³)	1" (25 mm)	24" (610 mm) and 48" (1,219 mm)	24" (1,219 mm) to 96" (2,438 mm)
	1½" (38 mm)		
	2" (51 mm)		
	3" (76 mm)		
	4" (102 mm)		

Thermal Conductivity | ASTM C177

Mean Temperature	k	k(SI)
100° F (38° C)	0.25	0.036
200° F (93° C)	0.33	0.048
300° F (149° C)	0.40	0.058
400° F (204° C)	0.49	0.071
500° F (260° C)	0.57	0.082



APPLICATION & SPECIFICATION GUIDELINES

Precautions

- 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.
- Product 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 Knauf or NAIMA 3E Plus program.
- Finish surface with metal cover, or with insulating cement and canvas.

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.

PACKAGING

Vacuum packaging this product will reduce some mechanical properties of the insulation. By ordering vacuum packaged products, the customer acknowledges these reduced properties and assumes responsibility for the fitness for use in their application.

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

See patent www.knaufnorthamerica.com/patents

© 2025 Knauf Insulation, Inc.

The trademarks KNAUF, PERFORMANCE+, ECOSE, the design elements and colors, and related marks are trademarks of Knauf Insulation, Inc. or its affiliates.