



Knauf Data Sheet

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# Elevated Temperature Batt 1000° and HD Blanket 1000°

with *ECOSE®* Technology

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# Elevated Temperature Batt 1000° and HD Blanket 1000° with ECOSE® Technology

## Description

Knauf ET Batt 1000° and Knauf ET HD Blanket 1000° with ECOSE Technology are semi-rigid thermal insulations (1.6 pcf, 25.6 kg/m<sup>3</sup>) bonded with ECOSE Technology.

## ECOSE Technology

ECOSE Technology is a revolutionary new binder chemistry that makes Knauf Insulation products even more sustainable than ever. It is based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals traditionally used in fiberglass insulation products. ECOSE Technology reduces binder embodied energy and does not contain phenol, formaldehyde, acrylics or artificial colors.

## Application

Knauf ET Batt 1000° and Knauf ET HD Blanket 1000° with ECOSE Technology are used in high-temperature marine applications, industrial furnaces, boilers, vessels and industrial ovens, where lighter-weight insulation is needed or flexible and/or semi-rigid high-temperature insulations are needed for irregular surfaces.

## Features and Benefits

### Excellent Thermal Properties

- Low thermal conductivity.
- Increase system efficiency and decrease fuel usage.

### Low-Cost Installations

- Lightweight and easy to handle and fabricate.
- Flexibility makes them ideal for flat or irregular surfaces.

## Damage Resistant

- More resistant to abuse than standard ET blankets.
- Tough and resilient.
- Resist damage in shipment and during and after installation.

## Custom Sizes

- All items are available in made-to-order sizes.

## Indoor Air Quality Excellence

- Certified for indoor air quality as a low emitting product by The GREENGUARD Environmental Institute to both the GREENGUARD Certification Program<sup>SM</sup> and the more stringent GREENGUARD Children and Schools<sup>SM</sup> standard.

## Sustainability

- Carbon-negative - meaning: Knauf insulation products used for thermal insulating purposes recover the energy that it took to make them in just hours or a few days, depending on the application. Once installed, the product continues to save energy and reduce carbon generation as long as it is in place.
- Fiber glass insulation with ECOSE Technology contains three primary ingredients:
  - Sand, one of the world's most abundant and renewable resources
  - Post-consumer recycled bottle glass
  - ECOSE Technology which reduces binder embodied energy by up to 70% and total product embodied energy by up to 4%.

## Specification Compliance

### In U.S.:

- UL/ULC Classified
- MIL-I-24244C
- NRC Reg. Guide 1.36. (Certification needs to be specified at time of order)
- GREENGUARD Indoor Air Quality Certified®
- GREENGUARD Children & Schools<sup>SM</sup>
- HH-I-558C; Form B, Type I, Class 7, 8
- USCG 164.109/18/0

## In Canada:

- CAN/ULC S102-M88
- CCG F1-314
- CGSB 51-GP-11M

## Technical Data

### Surface Burning Characteristics

- UL/ULC Classified
- Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E 84, CAN/ULC S102-M88, NFPA 90A and 90B, NFPA 255 and UL 723.

### Water Vapor Sorption (ASTM C 1104)

- 0.1% or less by volume.

### Temperature Limit (ASTM C 411)

- Up to 1000°F (538°C) at a maximum recommended thickness of 6".

### Resists Microbial Growth (ASTM C 1338, G21)

- Does not promote or support the growth of mold, fungi or bacteria.

### Corrosiveness (ASTM C 665)

- Does not accelerate corrosion on aluminum, steel or copper.

### Corrosion (ASTM C 1617)

- The corrosion rate in mills/yr will not exceed that of the 1 ppm chloride solution.

## Application and 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. Protect from welding sparks and open







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### Caution

Fiber glass 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.

### Fiber Glass and Mold

Fiber glass 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 Knauf ET Batt 1000° and Knauf ET HD Blanket 1000° with ECOSE® Technology represent typical 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 Knauf Insulation sales representative to assure information is current.



### LEED Eligible Product

Use of this product may help building projects meet green building standards as set by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. Credit 4.1 - 4.2 Recycled Content  
 Credit 5.1 - 5.2 Regional Materials



Knauf Elevated Temperature Batt 1000° and HD Blanket 1000° with ECOSE® Technology products are certified for indoor air quality by The GREENGUARD Environmental Institute™, to both the GREENGUARD Certification Program™ and the more stringent GREENGUARD For Children and Schools™ Standard. www.greenguard.org

The GREENGUARD INDOOR AIR QUALITY CERTIFIED Mark is a registered certification mark used under license through the GREENGUARD Environmental Institute.