



Knauf Data Sheet

MB-DS-2E 01-09

# **Metal Building Insulation** with ECOSE™ Technology

with **ECOSE™**  
TECHNOLOGY

# Metal Building Insulation with ECOSE™ Technology

## Description

Knauf Metal Building Insulation with ECOSE™ Technology is a resilient, flexible unfaced blanket insulation made from inorganic fibers bonded by thermosetting resin. The blanket is suitable for application of facings and has sufficient tensile and bond strength for normal handling by the laminator and contractor. The blanket may also be used unfaced as additional insulation to fill voids in wall and roofs of metal buildings.

## ECOSE Technology

ECOSE Technology is a revolutionary new organic binder that contains no phenol, formaldehyde, acrylics or artificial colors. It is made from rapidly renewable organic materials instead of oil-based chemicals for greater sustainability.

## Application

When Knauf Metal Building Insulation is faced with a suitable vapor retarder, it can be installed in exterior wall and roof surfaces of pre-engineered buildings. The product may be used unfaced to fill voids in walls and roof cavities of pre-engineered buildings.

## Features

- Low thermal conductivity
- Superior acoustical performance
- Fire-resistant, non-corrosive, tough and resilient

## Benefits

- Energy conservation
- Better temperature control
- Lower operating costs
- Noise control
- Withstands damage from normal handling and shop abuse
- Condensation control

## Technical Data

### Surface Burning Characteristics

- Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E 84, NFPA-255 and UL 723.

### Odor (ASTM C 1304)

- No objectionable odor emission.

### Water Vapor Sorption (ASTM C 1104)

- Less than 0.2% by volume or 5% by weight.

### Corrosiveness (ASTM C 665)

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

### Resistance to Microbial Growth (ASTM C 1338)

- Does not promote microbial growth.

### Temperature Range (ASTM C 411)

- The unfaced blanket will not deteriorate up to 350°F (177°C).

### Noncombustibility (ASTM E 136)

- Noncombustible.

## Specification Compliance

- ASTM C 553 Type I, II
- ASTM C 991 Type I
- GREENGUARD Children & Schools<sup>SM</sup>
- HH-I-558C Form B, Class 6
- NAIMA Standard 202-96 (REV.2000)
- ASTM E 136

## 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 with organic materials. 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. Air handling insulation used in the air stream must be discarded if exposed to water.

## Notes

The chemical and physical properties of Knauf Metal Building Insulation represent typical average values determined in accordance with accepted test methods. 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.

## Caution

If Knauf Metal Building Insulation is compressed beyond a 5:1 ratio during or after lamination, the product can be damaged.

Check with your Knauf Insulation sales representative to assure information is current.



### Sound Absorption Coefficients (ASTM C 423, Type A Mounting)

	<sup>1</sup> / <sub>3</sub> Octave Band Center Frequency (cycles/sec.)						
	125	250	500	1000	2000	4000	NRC
3"	.36	.76	1.04	.94	.98	1.00	.95
4"	.59	1.01	.97	.96	1.06	1.08	1.00
6"	1.18	1.36	1.02	1.02	1.12	1.07	1.15

### Forms Available

Thickness	Width	Length
3¼** (83 mm)	36"-60" (915-1524 mm) 72"-96" (1829-2438 mm)	100' (30.48 m)
3½** (89 mm)		100' (30.48 m)
4¼** (108 mm)		75' (22.86 m)
5** (127 mm)	72"-96" (1829-2438 mm)	50' (15.24 m)
6** (152 mm)	36"-60" (915-1524 mm) 72"-96" (1829-2438 mm)	50' (15.24 m)
8" (203 mm)		40' (12.19 m)
9½" (241 mm)		25' (7.62 m)

\* Meets NAIMA Standard 202-96 (REV. 2000)

### R-Value

(ASTM C 518) Mean Temperature 75°F

Thickness	R-Value
3¼"	10
3½"	11
4¼"	13
5"	16
6"	19
8"	25
9½"	30

For more information call (800) 825-4434, ext. 8283

or visit us online at [www.knaufinsulation.us](http://www.knaufinsulation.us)

# KNAUF INSULATION

*it's time to save energy*



Knauf Insulation GmbH  
One Knauf Drive  
Shelbyville, IN 46176

Sales and Marketing (800) 825-4434, ext. 8283

Technical Support (800) 825-4434, ext. 8212

Fax (317) 398-3675

Information [info.us@knaufinsulation.com](mailto:info.us@knaufinsulation.com)

World Wide Web [www.knaufinsulation.us](http://www.knaufinsulation.us)

©2009 Knauf Insulation GmbH.



#### 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 Metal Building Insulation with ECOSE Technology products are 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 for Children and Schools<sup>SM</sup> standard. [www.greenguard.org](http://www.greenguard.org)

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

