



Knauf Data Sheet

OM-DS-4e 02-13

# Equipment Liner M

*with ECOSE® Technology*



# Equipment Liner M with ECOSE® Technology

## Description

Knauf Equipment Liner M with ECOSE Technology is a brown flexible fiber glass blanket with a facing adhered to the air stream side. The product provides thermal and acoustical insulation while providing a smooth, tough air stream surface which resists damage during installation and operation.

## ECOSE Technology

ECOSE Technology is a revolutionary 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 fiber glass insulation products. ECOSE Technology reduces binder embodied energy and does not contain phenol, formaldehyde, acrylics or artificial colors.

## Application

It is used to provide noise reduction and thermal insulation for equipment (air conditioning, heating) where air erosion resistance is required. The product is designed for systems operating at temperatures up to 250°F (121°C) and velocities up to 6000 fpm (1829 mpm).

## Features and Benefits

- 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%

## Technical Data

### Fire Resistance

- Meets NFPA 90A and NFPA 90B Standards for fire safety.

### Temperature Range (ASTM C 411)

- Up to 250°F (121°C).

### Air Velocity (ASTM C 1071)

- Maximum 6000 fpm (1829 mpm).

### Corrosiveness (ASTM C 665)

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

### Corrosion (ASTM C 1617)

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

### Water Vapor Sorption (ASTM C 1104)

- Less than 3% by weight.

### Surface Burning Characteristics (UL/ULC Listed)

- When tested in accordance with ASTM E 84, UL 723, CAN 4-S102, and NFPA-255, Knauf Equipment Liner M does not exceed 25 Flame Spread, 50 Smoke Developed

## Microbial Growth

### (ASTM C 1338, G 21)

- The airstream surface mat facing is treated with an EPA-registered anti-microbial agent to aid in the prevention of fungal and bacterial growth.
- Does not promote or support the growth of mold, fungi or bacteria.

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

## Notes

The chemical and physical properties of Knauf Equipment Liner M with ECOSE Technology represent typical average values determined in accordance with accepted test methods. The data is subject to normal 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 material under actual fire conditions.

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



**Sound Absorption Coefficients**  
(ASTM C 423) Type A Mounting

Octave Band Center Frequency (cycles/sec)								
Type		125	250	500	1000	2000	4000	NRC
1.5 PCF (24 kg/m <sup>3</sup> )	1" (25 mm)	.18	.36	.59	.86	.95	.90	.70
	1½" (38 mm)	.35	.51	.83	.93	.97	.96	.80
	2" (51 mm)	.34	.64	.96	1.03	1.00	1.03	.90
2.0 PCF (32 kg/m <sup>3</sup> )	½" (13 mm)	.09	.14	.40	.60	.73	.82	.45
	1" (25 mm)	.25	.35	.69	.89	.96	1.01	.70
	1½" (38 mm)	.27	.55	.87	.99	1.00	.98	.85

**Forms Available**

Density	Thickness	Width	Length
1.5 PCF (24 kg/m <sup>3</sup> )	1" (25 mm)	24" (610 mm)	100' (30.48 m)
	1½" (38 mm)		50' (15.24 m)
	2" (51 mm)	34"-36" (864 mm-915 mm)	50' (15.24 m)
2.0 PCF (32 kg/m <sup>3</sup> )	½" (13 mm)	46"-48" (1168 mm-1219 mm)	100' (30.48 m)
	1" (25 mm)	58"-60" (1473 mm-1524 mm)	50' (15.24 m)
	1½" (38 mm)	70"-72" (1778 mm-1829 mm)	50' (15.24 m)

**Thermal Resistance**

(ASTM C 518) 75°F Mean Temperature

Density	Thickness	K Value @ 75°F (24°C)
1.5 PCF (24 kg/m <sup>3</sup> )	1" (25 mm)	4.2
	1½" (38 mm)	6.0
	2" (51 mm)	8.0
2.0 PCF (32 kg/m <sup>3</sup> )	½" (13 mm)	2.1
	1" (25 mm)	4.2
	1½" (38 mm)	6.3

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#### 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.

**MR Credit 4.1 – 4.2 Recycled Content**

**MR Credit 5.1 – 5.2 Regional Materials**



Knauf Equipment Liner M 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](http://www.greenguard.org)

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