# **Equipment Liner M**

# with ECOSE® Technology

# KNAUFINSULATION FOR THE WORLD WE LIVE IN!

#### **DESCRIPTION**

Equipment Liner M with ECOSE Technology is a flexible fiberglass blanket with a black mat facing adhered to the air stream side. The product provides a smooth, tough air stream surface which resists damage during installation and operation.

#### **APPLICATION**

- Noise reduction and thermal insulation for equipment (HVAC) where air erosion resistance is required
- Designed for systems operating at temperatures up to 250° F (121° C) and velocities up to 6,000 ft./min. (1,829 m/min.)

## **INDOOR AIR QUALITY**

- 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

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

CONTRACTOR:	
JOB:	
DATE:	

# DOING MORE FOR THE WORLD WE LIVE IN.

Knauf Insulation products with ECOSE® Technology are made using our patented, bio-based binder - a smarter alternative to the phenol/formaldehyde (PF) binder traditionally used in fiberglass products. The bio-based binder holds our product together, gives the product its unique appearance and makes it formaldehyde-free.

All of our products are made from sustainable resources, such as recycled glass and sand. And we're proud to be putting glass bottles back to work rather than into landfills. Our products are made with a minimum of 50% recycled glass—totaling an average of 26 million bottles each month.



TECHNICAL DATA				
Property (Unit)	Test	Performance		
Corrosiveness	ASTM C665	Does not accelerate corrosion of steel		
Corrosion	ASTM C1617	Pass		
Air Velocity	ASTM C1071	Maximum 6,000 ft./min. (1,829 m/min.)		
Water Vapor Sorption (by weight)	ASTM C1104	Less than 3%		
Maximum Service Temperature	ASTM C411	250° F (121° C)		
Mold Growth	ASTM C1338, ASTM G21	Pass. The airstream surface mat facing is treated with an EPA-registered anti-microbial agent to aid in the prevention of fungal and bacterial growth		
Surface Burning Characteristics (flame spread/smoke developed)	ASTM E84, NFPA 90A and 90B UL 723, CAN S102	UL Classified FHC 25/50		

SOUND ABSORPTION COEFFICIENTS   ASTM C423, TYPE A MOUNTING								
Octave Band Center Frequency (cycles/sec)								
Ту	pe	125	250	500	1000	2000	4000	NRC
	1" (25 mm)	0.18	0.28	0.73	0.85	0.91	0.90	0.70
1.5 PCF (24 kg/m <sup>3</sup> )	1½" (38 mm)	0.23	0.50	0.87	0.92	0.93	0.93	0.80
, ,	2" (51 mm)	0.37	0.76	1.02	1.00	0.98	0.92	0.95
	½" (13 mm)	0.10	0.17	0.43	0.59	0.73	0.75	0.50
2.0 PCF (32 kg/m³)	1" (25 mm)	0.25	0.35	0.69	0.89	0.96	1.01	0.70
	1½" (38 mm)	0.27	0.55	0.87	0.99	1.00	0.98	0.85

FORMS AVAILABLE					
Density	Thickness	Width	Length	Current Minimum (ft²)	
	1" (25 mm)	100' (30.48 m)	38,000		
1.5 PCF (24 kg/m³)	1½" (38 mm)	34"-36" (864 mm-915 mm) 46"-48" (1,168 mm-1,219 mm) 56"-72" (1,422 mm-1,829 mm)	50' (15.24 m)	27,000	
	2" (51 mm)		50' (15.24 m)	20,000	
	½" (13 mm)		100' (30.48 m)	54,000	
2.0 PCF (32 kg/m³)	1" (25 mm)		50' (15.24 m)	31,000	
	1½" (38 mm)	1,422 11111-1,023 11111)	50' (15.24 m)	20,000	

THERMAL RESISTANCE   ASTM C518, 75° F MEAN TEMPERATURE				
Density	Thickness	R-Value @ 75° F (24° C)		
1.5 PCF (24 kg/m³)	1" (25 mm)	R-4.2		
	1½" (38 mm)	R-6.0		
	2" (51 mm)	R-8.0		
2.0 PCF (32 kg/m³)	½" (13 mm)	R-2.1		
	1" (25 mm)	R-4.2		
	1½" (38 mm)	R-6.3		

# **CERTIFICATIONS** -













Check with your Knauf Insulation 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.

This product is covered by one or more U.S. and/or other patents. See patent <a href="https://www.knaufnorthamerica.com/patents">www.knaufnorthamerica.com/patents</a>

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