



## AK FLEX™ WITH ECOSE®

Operating Temperature: 0° F – 850° F (-18° C – 454° C)

### DESCRIPTION

AK Flex pipe and tank insulation with ECOSE® is a 48" (1,219 mm) wide semi-rigid fiberglass blanket, 2.5 PCF (40 kg/m<sup>3</sup>) density, in roll form. It is available faced with a factory-applied ASJ or FSK vapor retarder jacket. The fiber orientation provides excellent compressive strength while maintaining flexibility for ease of installation.

### APPLICATION

Manson Insulation AK Flex pipe and tank insulation is typically used on tanks, vessels and large-diameter (greater than 10" (25.4 cm) pipes. It can be used for any curved or irregular surfaces that require finished characteristics of rigid fiberglass insulation, including round and flat-oval duct or other air distribution system components

### SUSTAINABILITY

All of our products are made from sustainable resources, such as recycled glass and sand. We are 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.

### INSTALLATION

For proper application, simply follow these guidelines:

- Refer to the Stretch-out Chart to find the appropriate length to cut for the specific pipe size. Be sure to add an additional 2" (51 mm) to 4" (102 mm) for your staple flap.
- Cut your stretch-out length and wrap the material around the pipe or vessel to ensure the proper fit.

### PRODUCT FEATURES

- EUCEB certified
- **Asthma & Allergy Friendly®**
- Verified Healthier Air™
- UL Environment
  - GREENGUARD Certified
  - GREENGUARD Gold Certified
  - Validated to be Formaldehyde-Free

### SPECIFICATION COMPLIANCE

- ASTM C1393; Types I, II, IIIA, IIIB; Category 2
- ASTM C1136 (facings); FSK: Type II, ASJ: Type I, II

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

### 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.

### NOTES

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.

Check with your Manson Insulation Area Manager to ensure information is current.

### FORMS AVAILABLE

THICKNESS	WIDTH	LENGTH
1" (25 mm)	48" (1,219 mm)	52' (15.85 m)
1½" (38 mm)		30' (9.14 m)
2" (51 mm)		26' (7.92 m)
3" (76 mm)		18' (5.48 m)

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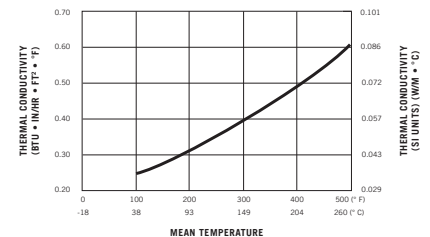
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TECHNICAL DATA		
PROPERTY (UNIT)	TEST	PERFORMANCE
Corrosiveness	ASTM C665	Does not accelerate corrosion of steel
Maximum Service Temperature	ASTM C411	850° F (454° C)
Linear Shrinkage	ASTM C356	Less than 0.3%
Water Vapor Sorption (by weight)	ASTM C1104	5% or less
Water Vapor Permeance	ASTM E96, Procedure A	0.02 perms (FSK, ASJ facing)
Puncture Resistance	TAPPI Test T803, Beach Units	FSK facing: 25, ASJ facing: 50
Compressive Strength	ASTM C165	Not less than 25 PSF (1.2 kPa) at 10% deformation
Mold Growth	ASTM C1338	Pass
Surface Burning Characteristics (flame spread/smoke developed)	ASTM E84, UL 723, CAN/ULC S102	UL/ULC Classified FHC 25/50

## STRETCH-OUTS | ADDITIONAL 2" (51 mm) TO 4" (102 mm) SHOULD BE ADDED FOR LAP

NOMINAL IRON PIPE SIZE	IRON PIPE OUTSIDE DIAMETER	THICKNESS			
		1" (25 mm)	1½" (38 mm)	2" (51 mm)	3" (76 mm)
10" (254 mm)	10¾" (273 mm)	40⅞" (1019 mm)	43¼" (1099 mm)	46⅝" (1178 mm)	52⅝" (1337 mm)
12" (305 mm)	12¾" (324 mm)	46⅝" (1178 mm)	49½" (1257 mm)	52¾" (1340 mm)	59" (1499 mm)
14" (356 mm)	14" (356 mm)	50⅝" (1280 mm)	53½" (1359 mm)	56⅝" (1438 mm)	62⅞" (1597 mm)
16" (406 mm)	16" (406 mm)	56⅝" (1438 mm)	59¾" (1518 mm)	62⅞" (1597 mm)	69⅞" (1756 mm)
18" (457 mm)	18" (457 mm)	62⅞" (1597 mm)	66" (1676 mm)	69¼" (1756 mm)	75½" (1918 mm)
20" (508 mm)	20" (508 mm)	69⅞" (1756 mm)	72⅝" (1838 mm)	75½" (1918 mm)	81¼" (2076 mm)
22" (559 mm)	22" (559 mm)	75½" (1918 mm)	78⅝" (1997 mm)	81¼" (2076 mm)	88" (2235 mm)
24" (610 mm)	24" (610 mm)	81¼" (2076 mm)	84⅞" (2156 mm)	88" (2235 mm)	94⅞" (2397 mm)
26" (660 mm)	26" (660 mm)	88" (2235 mm)	91⅞" (2315 mm)	94⅞" (2397 mm)	100⅝" (2556 mm)
28" (711 mm)	28" (711 mm)	94⅞" (2397 mm)	97½" (2477 mm)	100⅝" (2556 mm)	106⅞" (2715 mm)
30" (762 mm)	30" (762 mm)	100⅝" (2556 mm)	103¾" (2635 mm)	106⅞" (2715 mm)	113⅞" (2873 mm)
32" (813 mm)	32" (813 mm)	106⅞" (2715 mm)	110" (2794 mm)	113⅞" (2873 mm)	119½" (3035 mm)
34" (864 mm)	34" (864 mm)	113⅞" (2873 mm)	116¼" (2953 mm)	119½" (3035 mm)	125¾" (3194 mm)
36" (914 mm)	36" (914 mm)	119½" (3035 mm)	122⅝" (3115 mm)	125¾" (3194 mm)	132" (3353 mm)
38" (965 mm)	38" (965 mm)	125¾" (3194 mm)	128⅞" (3273 mm)	132" (3353 mm)	138¼" (3512 mm)
40" (1016 mm)	40" (1016 mm)	132" (3353 mm)	135⅞" (3432 mm)	138¼" (3512 mm)	144⅝" (3673 mm)
42" (1067 mm)	42" (1067 mm)	138¼" (3512 mm)	141½" (3594 mm)	144⅝" (3673 mm)	150⅞" (3832 mm)

## THERMAL EFFICIENCY | ASTM C177



MEAN TEMPERATURE	K	K (SI)
75° F (24° C)	0.24	0.035
100° F (38° C)	0.25	0.036
200° F (93° C)	0.32	0.046
300° F (149° C)	0.39	0.056
400° F (204° C)	0.49	0.070
500° F (260° C)	0.61	0.088

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## APPLICATION & SPECIFICATION GUIDELINES

### Precautions

- ASJ, FSK and PSK jackets should not be used if outer-surface temperature exceeds 150° F (66° C).
- 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.
- Care must also be taken when using sealants, solvents or flammable adhesive during installation.

### Storage

- Protect stored insulation from water damage or other abuse.
- Protect from welding sparks and open flame.
- Packages are not designed for outside storage.

### Preparation

- Apply product on clean, dry surfaces.

Manson Insulation | [www.imanson.com](http://www.imanson.com)

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Manufactured by Knauf Insulation

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