

## ALLEY-K®

Temperature Limit: 850°F (454°C)

### DESCRIPTION

Alley-K pipe insulation is a preformed insulation product composed of high quality glass fibers bonded together with a thermosetting resin. The 36" pipe sections are available with or without the all service jacket (ASJ). Our all service vapor retarder jakcet (ASJ) reinforced with glass fibers comes with a factory-applied, pressure-sensitive self-sealing lap closure system (SSL). Butt strips are also supplied.

### APPLICATION

Manson Insulation pipe insulation is intended as a thermal insulation product for hot and cold service piping. Typical uses include domestic hot and cold water, hot water heating, high temperature, dual temperature, steam, condensate and refrigerated lines. As a component of a suitable insulation system, plain pipe insulation may be used for light industrial applications, while pipe insulation with ASJ jacket may be used for commercial and institutional usage.

### INSTALLATION

Manson Insulation pipe insulation is usually installed in accordance with the procedure in the publication "Commercial & Industrial Standards" by the National Insulation Association (NIA).

### SPECIFICATION COMPLIANCE

**ASTM C547** Type I

**ASTM C795**

**ASTM C585**

**MIL-I-24244C**

**City of New York MEA 325-83-M**

**NRC Reg Guide 1.36**

**ASTM C1338**

**ASTM C356**

#### Jacketing

- UL 723/ASTM E84
- CGSB 51-GP-52M
- ASTM C1136 (Type I, II)
- Water Vapor Permeance (ASTM E-96): 0.02 perms MAX
- TAPPI T803 (Beach Units) Jacket minimum rating of 50 units

#### Surface Burning Characteristics

- UL/ULC Classified
- Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with CAN/ULC S102-M88 and NFPA 255

#### NFPA 90A and 90B

### PRODUCT FEATURES

#### Greenguard Certification

- Greenguard GOLD certified for indoor air quality performance.

#### EUCEB

- This product is tested and certified to meet EUCEB requirements.

#### Temperature Limitation (ASTM C411)

- Up to 850°F (454°C)

#### Alkalinity (ASTM C871)

- Less than 0.6% as Na<sub>2</sub>O
- pH between 7.5 and 12.0

#### Corrosiveness (ASTM C665)

- No greater than sterile cotton

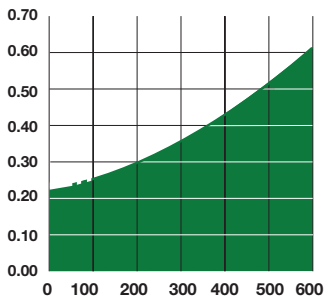
#### Water Vapor Sorption (ASTM C1104)

- 0.2% or less by volume

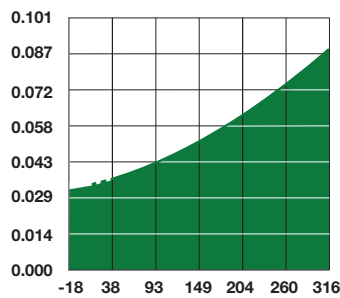
### THERMAL CONDUCTIVITY ASTM C335

°F	°C	BTU.IN/HR.FT². °F	W/M. °C
75	24	0.23	0.033
100	38	0.24	0.035
200	93	0.28	0.040
300	149	0.34	0.049
400	204	0.42	0.061
500	260	0.51	0.074
600	316	0.62	0.089

### THERMAL CONDUCTIVITY BTU.IN/HR.FT².°F



### METRIC THERMAL CONDUCTIVITY W/M. °C



### FIRE HAZARD CLASSIFICATION

	FLAME SPREAD	SMOKE DEVELOPED
Plain	25	50
ASJ	25	50

### HEAT UP SCHEDULE

TIME (HRS)	TEMPERATURE	TOTAL TIME (HRS)
3.5	550 F (288 C)	3.5
2.5	650 F (343 C)	6
2	750 F (399 C)	8

### NOTES

The chemical and physical properties of Manson Insulation Alley-K insulation represent average values determined in accordance with accepted test methods. The data is subject to normal manufacturing and testing 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 assure information is current.

### USAGE QUALIFICATIONS

- Hot surface performance: tested to 850°F (454°C) according to ASTM C411.
- A sufficient thickness of insulation must be used to keep maximum surface temperature of Manson Insulation pipe insulation with ASJ jacket below 140°F (60°C).
- Apply when ambient and insulation temperatures are between 20°F and 130°F (-6.7°C and 54°C)
- When pressure sensitive self-sealing tape and butt strips are used, the material must be stored in a clean, dry environment.
- Keep adhesive and contact surfaces free from dirt and water, seal immediately once adhesive is exposed. Do not store product below -20°F (-29°F) or above 150°F (66°C). If stored below 20°F or above 130°F, allow insulation cartons to stand within recommended temperature range for 24 hours prior to application. When adhering SSL tape and butt strip, rub firmly with a hard object such as a plastic squeegee or back of a knife to assure good vapor seal.
- At operating temperatures above 500°F (260°C), Manson Insulation pipe insulation must be applied in a thickness ranging from 2" (51 mm) min to 6" (152 mm) max.
- Due to the fact that binder is organic in nature, we recommend the following heat up schedule for operating temperatures from 500°F (260°C) to 850°F (454°C). (see table)
- Fibrous insulation can emit an acrid odour during the initial heat-up when applied to hot surfaces above 392°F (200°C). It is recommended that adequate ventilation be provided and /or workers be supplied with approved full face respirators!

### GLASS MINERAL WOOL AND MOLD

Glass mineral wool 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.

