



ALLEY-K™ is a preformed pipe insulation composed of high quality glass fibres, bonded together with a thermosetting resin. The lightweight, 36" pipe sections are manufactured with the flame attenuated process and are available with or without the all service jacket (ASJ). Our unique wrinkle-free all service vapour retarder jacket (ASJ) reinforced with glass fibres comes with a factory applied pressure sensitive self-sealing lap closure system (SSL). Butt strips are also supplied.

USES

ALLEY-K™ is intended as a thermal insulation 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 ALLEY-K™ may be used for light industrial applications, while ALLEY-K™ with ASJ jacket may be used for commercial and institutional usage.

AVAILABILITY

Manufactured dimensions are listed below.

INSULATION THICKNESS		COPPER PIPE SIZES		IRON PIPE SIZES	
1/2"	13 mm	5/8" – 4 1/8"	16 mm – 105 mm	1/2" – 4 1/2"	13 mm – 114 mm
1"	25 mm	5/8" – 4 1/8"	16 mm – 105 mm	1/2" – 24"	13 mm – 610 mm
1 1/2"	38 mm	5/8" – 4 1/8"	16 mm – 105 mm	1/2" – 24"	13 mm – 610 mm
2"	51 mm	5/8" – 4 1/8"	16 mm – 105 mm	1/2" – 24"	13 mm – 610 mm
2 1/2"	64 mm			3/4" – 24"	19 mm – 610 mm
3"	76 mm			1 1/2" – 24"	38 mm – 610 mm
3 1/2"	89 mm			2" – 24"	51 mm – 610 mm
4"	102 mm			2" – 24"	51 mm – 610 mm

CONTRACTOR:

JOB NAME:

DATE:

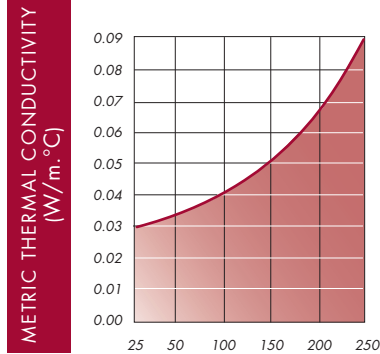
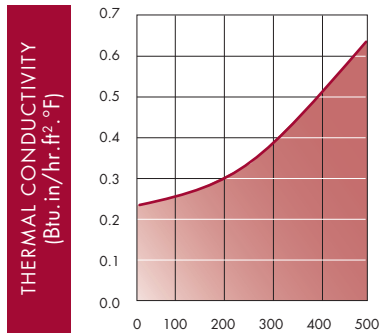
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ALLEY-K™

Fiberglass Pipe Insulation

-20°F to 850°F (-29°C to 454°C)



THERMAL CONDUCTIVITY (ASTM C335)

MEAN TEMPERATURE		THERMAL CONDUCTIVITY	
°F	°C	Btu.in/hr.ft².°F	W/m.°C
75	24	0.231	0.033
100	38	0.234	0.034
200	93	0.268	0.039
300	149	0.337	0.049
400	204	0.475	0.068
500	260	0.635	0.092

PRODUCT FEATURES

WATER VAPOUR ABSORPTION
(ASTM C553) Less than 5% by weight

ALKALINITY AND pH
(CGSB-51-GP-9M) Maximum alkalinity 0.5% (Na₂O), pH maximum: 12

BACTERIA FUNGI RESISTANCE (ASTM 665) Does not promote growth

HOT SURFACE PERFORMANCE (ASTM C411) Rated to 850°F (454°C)

LINEAR SHRINKAGE (ASTM C356) Less than 2%

SPECIFICATION COMPLIANCE

ASTM C547 Standard Specifications for Mineral Pipe Insulation

ASTM C795, MIL-I-24244C, NRC 1.36
Specification for wicking-type thermal insulation for use over austenitic stainless steel

SMOKE OPACITY AND FLAME SPREAD
(ASTM E662, ASTM E162)

Exceeds requirements for optical opacity of smoke generated and flame spread, as per Department of Transportation, Urban Mass Transit Division

JACKETING

- UL 723/ASTM E84
- CGSB 51-GP-52M
- ASTM C1136 (Type 1)
- Water Vapour Permeance (ASTM E-96): 0.02 perms (Max)
- (ASTM C1338) Mold and Mildew Resistance
- Tensile Strength (ASTM D828):
MD: 60 lbs/inch
OM: 50 lbs/inch

CITY OF NEW YORK MEA #21-91-M

CITY OF LOS ANGELES #RR-8319

NATIONAL FIRE PROTECTION ASSOCIATION
NFPA 90A & 90B

CGSB 51-GP-9M

FIRE HAZARD CLASSIFICATION
(UL 723, CANULC-S102M, ASTM E84, NFPA 255)
Listed by UL for surface burning characteristics (SEE TABLE)

FIRE HAZARD CLASSIFICATION

	FLAME SPREAD	SMOKE DEVELOPED
Plain	25	50
ASJ	25	50

USAGE QUALIFICATIONS

1. Hot surface performance: tested to 850°F (454°C) according to ASTM C411.
2. A sufficient thickness of insulation must be used to keep maximum surface temperature of Alley-K™ ASJ pipe insulation below 140°F (60°C).
3. At operating temperatures above 500°F (260°C), Alley-K™ must be applied in a thickness ranging from 2" (51mm) min to 6" (152mm) max.
4. 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)
5. When pressure sensitive self-sealing tape and butt strips are used, the material must be stored in a clean, dry environment. 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 vapour seal.
6. 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.

HEAT UP SCHEDULE

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

INSTALLATION

Manson ALLEY-K™ is usually applied in accordance with the procedure in the publication "Commercial & Industrial Standards" by the National Insulation Association.

Manson Insulation Inc. has no control over installation design, installation workmanship, accessory materials, or conditions of application. Manson does not warrant the performance or results of any installation containing their products. This warranty disclaimer includes all implied warranties, including the warranties of merchantability and fitness for a particular purpose.



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