



ALLEY WRAP™ is a thermal and acoustical insulation made from highly resilient, inorganic glass fibers bonded by a thermosetting resin. It is available unfaced, with a multi-purpose foil-scrim kraft (FSK) jacket. Vapor retarders have a 2" (51 mm) stapling flange on one edge, and the factory-applied facing assures uniform quality.

USES

Manson ALLEY-WRAP™ is used as an external insulation on commercial or residential heating or air conditioning ducts. It is suitable for the exterior of rectangular or round sheet metal ducts and spaces, or surfaces where temperature and condensation must be controlled.

AVAILABILITY

Manufactured dimensions are listed below. Please check with your market manager for information on other thicknesses, widths, and lengths.

FSK FOILED FACED	DENSITY	THICKNESS	WIDTH	LENGTH	R-VALUE	R-VALUE (INSTALLED)
	.75 PCF (12kg/m³)	1½"	48"	100'	R 5.1	R 4.2
		2"		75'	R 6.8	R 5.6
		2½"		75'	R 8.5	R 7.0
		3"		50'	R 10.2	R 8.4
	1.0 PCF (16kg/m³)	1½"		100'	R 5.6	R 4.5
		2"		75'	R 7.4	R 6.0
	1.5 PCF (24kg/m³)	1½"		75'	R 6.1	R 4.8
		2"		50'	R 8.2	R 6.4

UNFACED	DENSITY	THICKNESS	WIDTH	LENGTH	R-VALUE	R-VALUE (INSTALLED)
	.75 PCF (12kg/m³)	1½"	48"	100'	R 5.1	R 4.2
		2"		75'	R 6.8	R 5.6
	1.0 PCF (16kg/m³)	1½"		100'	R 5.6	R 4.5
		2"		75'	R 7.4	R 6.0

CONTRACTOR:

JOB NAME:

DATE:

ALLEY WRAP™

Fiberglass Blanket Insulation

Temperature Limit: UNFACED : 350°F (177°C)
FACED : 250°F (121°C)



ACOUSTICAL PERFORMANCE

INSERTION LOSS
(Reduction of Sound Transmitted Through Duct Wall)
(Sound and Vibration Design and Analysis, National Environmental Balancing Bureau, 1994)

DUCT DIMENSIONS	SHEET METAL	DUCT WRAP		INSERTION LOSS, dB/LF OF DUCT						
		NOMINAL THICKNESS	NOMINAL DENSITY	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz
12" x 12" (305 mm x 305 mm)	24 GA	1.5" (38 mm)	0.75 PCF (12kg/m ³)	0.6	0.6	0.6	0.7	7.4	14.2	20.9
24" x 12" (610 mm x 305 mm)	24 GA	1.5" (38 mm)	0.75 PCF (12kg/m ³)	0.6	0.6	0.6	0.7	7.4	14.2	20.9
48" x 12" (1219 mm x 305 mm)	22 GA	1.5" (38 mm)	0.75 PCF (12kg/m ³)	0.6	0.5	0.5	0.6	7.4	14.1	20.9
24" x 24" (610 mm x 610 mm)	22 GA	1.5" (38 mm)	0.75 PCF (12kg/m ³)	0.6	0.5	0.5	0.6	7.4	14.1	20.9
24" x 12" (610 mm x 305 mm)	26 GA	1.5" (38 mm)	0.75 PCF (12kg/m ³)	0.8	0.8	0.8	0.8	7.5	14.2	21.0
24" x 8" (610 mm x 203 mm)	26 GA	2" (51 mm)	0.75 PCF (12kg/m ³)	1.0	1.0	1.0	3.6	10.4	17.1	23.9

SPECIFICATION COMPLIANCE

Canada:

CAN/ULC S102-M88
CAN/CGSB 51.5M; Type II (FSK facing)
CAN/CGSB 51.11-92

USA:

ASTM C 553; Type I, II, III
ASTM C 795
ASTM C 1136; Type II
ASTM C 1290
GREENGUARD Environmental Institute™
California Title 24 (installed at 25% compression)
HH-I-558C; Form B, Type I, Class 7
MIL-I-24244C
NFPA 90A and 90B
NRC Reg. Guide 1.36

TECHNICAL DATA

Surface Burning Characteristics

- UL/ULC Classified.
- Unfaced or composite (insulation, facing and adhesive) does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E 84, CAN/ULC S102-M88, NFPA 255 and UL 723.

Temperature Range (ASTM C 411)

- Faced, can be used on ducts operating up to 250°F (121°C).
- Unfaced, up to 350°F (177°C).

Water Vapor Permeance (ASTM E 96, Procedure A)

- FSK facings have maximum water vapor permeance of .02 perms.

Water Vapor Sorption (ASTM C 1104)

- Less than 5% by weight when tested for 96 hours at 120°F (49°C) and 95% relative humidity.

Corrosiveness (ASTM C 665)

- Will not accelerate corrosion of a steel panel compared to sterile cotton.

Mold Growth (ASTM C 1338)

- No growth.

Puncture Resistance (TAPPI Test T803) (Beach Units)

- FSK : 25

THERMAL PERFORMANCE (ASTM C 177)

MEAN TEMPERATURE	THERMAL EFFICIENCY					
	0.75 PCF (12kg/m ³)		1.0 PCF (16kg/m ³)		1.5 PCF (24kg/m ³)	
	k	k (SI)	k	k (SI)	k	k (SI)
50°F (10°C)	0.28	0.040	0.26	0.037	0.23	0.033
75°F (24°C)	0.29	0.042	0.27	0.039	0.24	0.035
100°F (38°C)	0.31	0.045	0.29	0.042	0.26	0.037
125°F (52°C)	0.33	0.048	0.31	0.045	0.28	0.040
150°F (66°C)	0.36	0.052	0.34	0.049	0.31	0.045
175°F (80°C)	0.39	0.056	0.37	0.053	0.33	0.048
200°F (93°C)	0.43	0.063	0.40	0.058	0.36	0.052

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 with organic materials.

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.

INSTALLATION PROCEDURES

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

Manson Insulation products LTD. 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.

NOTES

The chemical physical properties of Manson Alley-Wrap represent typical 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 sales representative to assure information is current.