



ALLEY WRAP® B

Temperature Limit: Unfaced 350° F (177° C) | Faced 250° F (121° C)

DESCRIPTION

Alley Wrap B fiberglass blanket insulation is a thermal and acoustical insulation product made from highly resilient, inorganic glass fibers bonded by a thermosetting resin. It is available unfaced or with a multi-purpose foil-scrim kraft (FSK) jacket and with a white metalized polypropylene scrim-kraft (PSK) jacket. Vapor retarders have a 2" (51 mm) stapling flange on one edge, and the factory-applied facing assures uniform quality.

SUSTAINABILITY

Manson 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 and gives the product its unique appearance.

All of our products are formaldehyde-free and 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.

APPLICATION

Alley Wrap B 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.

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
- EUCB Certified

Provide Type II - 1-1/2" Thick 1.5PCF

SPECIFICATION COMPLIANCE

In U.S.

- ASTM C1290
 - Type I - unfaced
 - Type II, III - faced
- ASTM C553
 - Type I, Type II - 0.75 PCF (12 kg/m³)
 - Type I, Type II - 1.0 PCF (16 kg/m³)
 - Type I, II, III - 1.5 PCF (24 kg/m³)
- ASTM C1136, Type II
 - California Title 24 (installed at 25% compression)
 - NFPA 90A and 90B

In Canada

- CAN/CGSB 51.11-92

APPLICATION & SPECIFICATION GUIDELINES

Storage

- Protect stored insulation from water damage, construction damage and other abuse.
- If stored outside, proper protection from weather conditions should be provided.

Preparation

- Install Manson Insulation Alley Wrap B over clean, dry sheet metal ducts.
- All sheet metal joints and seams must be sealed to prevent air leakage from the duct.

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.

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.

TECHNICAL DATA

PROPERTY (UNIT)	TEST	PERFORMANCE
Corrosiveness	ASTM C665	Does not accelerate corrosion of steel
Corrosion	ASTM C1617	Pass
Water Vapor Permeance	ASTM E96, Procedure A	0.02 perms
Maximum Service Temperature	ASTM C411	Faced: 250° F (121° C), Unfaced: 350° F (177° C)
Mold Growth	ASTM C1338	Pass
Water Vapor Sorption (by weight)	ASTM C1104	5% or less
Surface Burning Characteristics (flame spread/smoke developed)	ASTM E84, CAN/ULC S102, UL 723	Unfaced, FSK: UL/ULC Classified FHC 25/50
	ASTM E84	PSK: 25/50

FORMS AVAILABLE

DENSITY	THICKNESS	WIDTH	LENGTH	FACING	R-VALUE (K VALUE) @ 75° F MEAN TEMPERATURE	
					OUT-OF PACKAGE	INSTALLED [AT 25% COMPRESSION]
0.75 PCF (12 kg/m³)	1½" (38 mm)	48" (1,219 mm)	100' (30.48 m)	FSK, PSK, Unfaced	R-5.1 (0.29)	R-4.2 (0.27)
	2" (51 mm)		75' (22.86 m)		R-6.8 (0.29)	R-5.6 (0.27)
	2¾" (56 mm)		75' (22.86 m)		R-7.4 (0.29)	R-6.0 (0.27)
1.0 PCF (16 kg/m³)	3" (76 mm)		50' (15.24 m)		R-10.2 (0.29)	R-8.4 (0.27)
	1½" (38 mm)		100' (30.48 m)		R-5.6 (0.27)	R-4.5 (0.25)
	2" (51 mm)		75' (22.86 m)		R-7.4 (0.27)	R-6.0 (0.25)
1.5 PCF (24 kg/m³)	1½" (38 mm)		75' (22.86 m)		R-6.1 (0.24)	R-4.8 (0.23)
	2" (51 mm)		50' (15.24 m)		R-8.2 (0.24)	R-6.4 (0.23)

THERMAL EFFICIENCY | ASTM C177

	Mean Temperature	0.75 PCF (12 kg/m³)		1.0 PCF (16 kg/m³)		1.5 PCF (24 kg/m³)	
		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	0.042
	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

ACOUSTICAL PERFORMANCE

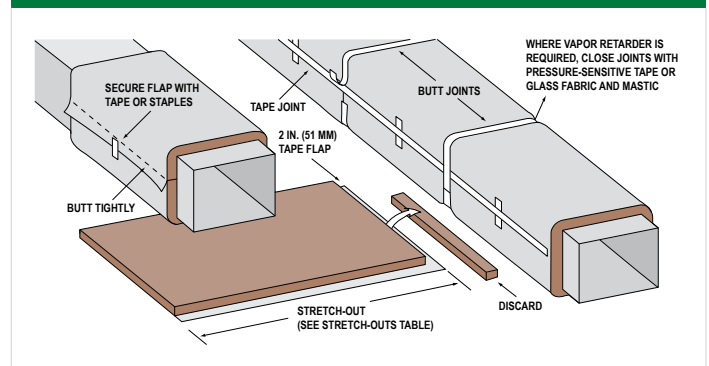
DUCT WRAP				INSERTION LOSS (Hz)						
DUCT DIMENSIONS	SHEET METAL	NOMINAL THICKNESS	NOMINAL DENSITY	63	125	250	500	1000	2000	4000
12" x 12" (305 mm x 305 mm)	24 GA	1½" (38 mm)	0.75 PCF (12 kg/m³)	0.6	0.6	0.6	0.7	7.4	14.2	20.9
24" x 12" (610 mm x 305 mm)	24 GA	1½" (38 mm)		0.6	0.6	0.6	0.7	7.4	14.2	20.9
48" x 12" (1219 mm x 305mm)	22 GA	1½" (38 mm)		0.6	0.5	0.5	0.6	7.4	14.1	20.9
24" x 24" (610 mm x 610 mm)	22 GA	1½" (38 mm)		0.6	0.5	0.5	0.6	7.4	14.1	20.9
24" x 12" (610 mm x 305 mm)	26 GA	1½" (38 mm)		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)		1.0	1.0	1.0	3.6	10.4	17.1	23.9

Insertion Loss: (Reduction of Sound Transmitted Through Duct Wrap) (Sound and Vibration Design and Analysis, National Environmental Balancing Bureau, 1944)

APPLICATION

- Install Manson Insulation Alley Wrap B with facing to the outside to obtain specified R-value using a maximum of 25% compression.
- Butt all insulation joints firmly together. Longitudinal seam of the vapor retarder must be overlapped a minimum of 2" (51 mm). A 2" (51 mm) tab is provided for the circumferential seam and must be overlapped.
- Where vapor retarder performance is necessary, all penetrations, joints, seams and damage to the facing should be sealed with an FSK, PSK or foil tape or glass fabric and mastic prior to system startup.
- Pressure sensitive tapes should be a minimum 3" (76 mm) wide and be applied with moving pressure using an appropriate sealing tool. Staples should be outward clinch and placed approximately 6" (152 mm) on center.
- Closure systems should have a 25/50 F.H.C. per UL 723.
- For rectangular ducts over 24" (610 mm) wide, secure the insulation to the bottom side of the duct with mechanical fasteners spaced on 18" (457 mm) centers to reduce sag. Care should be taken to avoid over compressing the insulation with the retaining washer.
- It is neither necessary nor desirable to adhere Alley Wrap B to duct surfaces with adhesive.
- Unfaced Alley Wrap B should be overlapped with a minimum of 2" (51 mm) and fastened with 4" (102 mm) to 6" (152 mm) nails or skewers placed 4" (102 mm) apart, or secured with a wire or banding system. Care must be taken to avoid damaging the Alley Wrap B. Refer to diagram for staple stitching and butt-joint method.

APPLICATION



INSTALLATION PROCEDURES

Use this table to determine stretch-outs required for the nominal thickness of insulation to limit average compression of the insulation to 25% or less.

STRETCH-OUTS				
LABELED THICKNESS	INSTALLED COMPRESSED THICKNESS	ROUND	SQUARE	RECTANGULAR
		P* +	P* +	P* +
1" (25 mm)	¾" (19 mm)	7" (128 mm)	6" (152 mm)	5" (127 mm)
1½" (38 mm)	1⅛" (29 mm)	9½" (241 mm)	8" (203 mm)	7" (178 mm)
2" (51 mm)	1½" (38 mm)	12" (305mm)	10" (254 mm)	8" (203 mm)
2⅜" (56 mm)	1⅞" (42 mm)	13" (330 mm)	11" (279 mm)	8½" (216 mm)
3" (76 mm)	2¼" (57 mm)	17" (432 mm)	14½" (368 mm)	11½" (292 mm)

*P = Perimeter of duct to be installed.

