



## 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.

### ECOSE® TECHNOLOGY

ECOSE Technology is a revolutionary binder chemistry that enhances the sustainability of our products. The "binder" is the bond that holds our fiberglass product together and gives the product its shape and brown color. ECOSE Technology is a plant-based, sustainable chemistry that replaces the phenol/formaldehyde (PF) binder traditionally used in fiberglass products. Products using ECOSE Technology are formaldehyde-free and have reduced global warming potential when compared to our products of the past.

### SUSTAINABILITY

Manson Insulation's products used for thermal insulating purposes recover the energy that it took to make them in just hours or days, depending on the application. Once installed, the product continues to save energy and reduce carbon generation as long as it is in place.

Fiberglass insulation with ECOSE Technology contains three key ingredients:

- Recycled glass content, verified annually by UL Environment
- Sand, one of the world's most abundant resources
- Our green chemistry initiative ECOSE Technology, which is validated to be formaldehyde-free

### APPLICATION

Manson Insulation 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.

### PRODUCT FEATURES

#### UL Environment

- GREENGUARD certified
- GREENGUARD Gold certified
- Validated to be formaldehyde-free

#### EUCEB

- Tested and certified to meet EUCEB requirements

### SPECIFICATION COMPLIANCE

#### In U.S.

- ASTM C1139; Unfaced, Type I, Type II, Grade 1 - 0.75 lb/ft<sup>3</sup>, Grade 2 - 1.0 lb/ft<sup>3</sup>, Grade 3 - 1.5 lb/ft<sup>3</sup>
- ASTM C553; Type I, II, III
- ASTM C1136; Type II
- ASTM C1290
- California Title 24 (installed at 25% compression)
- HH-I-558C; Form B, Type I, Class 7
- 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 Manson Insulation Alley Wrap B blanket insulation 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 Insulation Area Manager to ensure information is current.

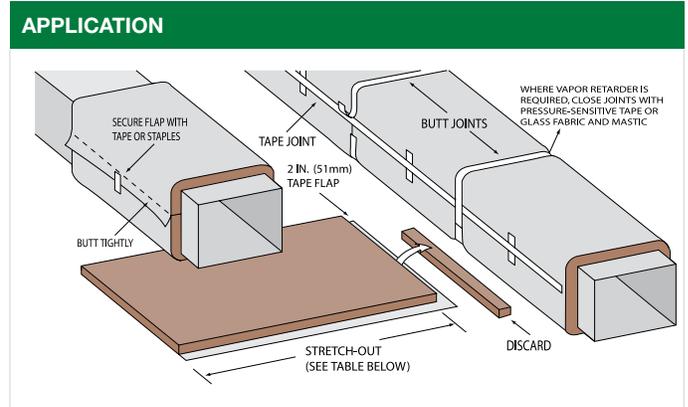
TECHNICAL DATA		
PROPERTY (UNIT)	TEST	PERFORMANCE
Corrosiveness	ASTM C665	Does not accelerate corrosion of steel
Corrosion	ASTM C1617	Pass
Water Vapor Permeance	ASTM E96, Procedure A	0.02 perms
Maximum Service Temperature	ASTM C411	Faced: 250° F (121° C), Unfaced: 350° F (177° C)
Mold Growth	ASTM C1338	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

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.



**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)	1⅝" (42 mm)	13" (330 mm)	11" (279 mm)	8½" (216 mm)
2½" (64 mm)	1⅞" (48 mm)	14½" (368 mm)	12½" (318 mm)	9½" (241 mm)
3" (76 mm)	2¼" (57 mm)	17" (432 mm)	14½" (368 mm)	11½" (292 mm)

\*P = Perimeter of duct to be installed.

**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)
	2½" (64 mm)		75' (22.86 m)		R-8.5 (0.29)	R-7.0 (0.27)
	3" (76 mm)		50' (15.24 m)		R-10.2 (0.29)	R-8.4 (0.27)
1.0 PCF (16 kg/m³)	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)

