

AK BOARD™

Temperature Limit: 450° F (232° C)

DESCRIPTION

AK Board is a thermal and acoustical insulation product made from inorganic glass fibers preformed into boards bonded by a thermosetting resin. It is available plain or with factory applied FSK or ASJ facings.

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

Manson Insulation AK Board is a versatile product for thermal and acoustical applications such as heating and air conditioning ducts, power and process equipment, boiler and stack installations, metal and masonry walls, wall and roof panel systems, curtain wall assemblies and cavity walls.

SPECIFICATION COMPLIANCE

- ASTM C612;
- Type IA (1.6, 2.25, 3.0, 4.25, 6.0 PCF) (26, 36, 48, 68, 96 kg/m³)
- Type IB (3.0, 4.25, 6.0 PCF) (48, 68, 96 kg/m³)
- ASTM C1136 (facings); Type II, IV (FSK), Type I, II (ASJ)
- California Title 24
- CGSM 51-GP-10M

INDOOR AIR QUALITY

- UL Environment
 - GREENGUARD Certified
 - GREENGUARD Gold Certified
 - Validated to be Formaldehyde-Free
- EUCEB certified

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.

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

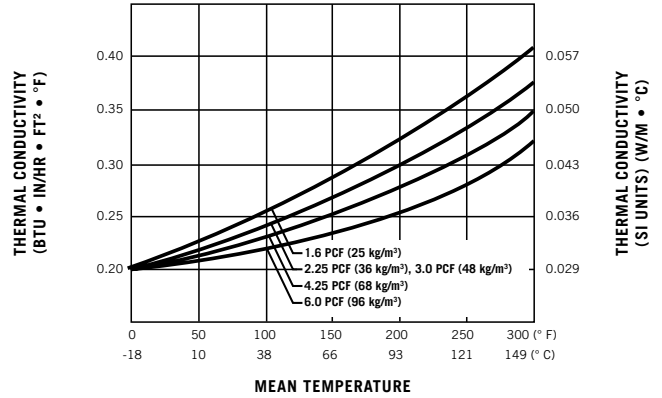
PROPERTY (UNIT)	TEST	PERFORMANCE
Corrosiveness	ASTM C665	Does not accelerate corrosion of steel
Corrosion	ASTM C1617	Pass
Linear Shrinkage	ASTM C356	Less than 0.3%
Maximum Service Temperature	C411	450° F (232° C)
Water Vapor Sorption (by weight)	ASTM C1104	Less than 5%
Water Vapor Permeance	ASTM E96, Procedure A	0.02 perms
Puncture Resistance	TAPPI T803, Beach Units	FSK facing: 25, ASJ facing: 50
Microbial Growth	ASTM C1338	Pass
Surface Burning Characteristics (flame spread/smoke developed)	ASTM E84, UL 723, CAN/ULC S102, NFPA 90A and 90B	UL/ULC Classified FHC 25/50

FORMS AVAILABLE*

DENSITY	THICKNESS	R-VALUE	(R-SI)
1.6 PCF (26 kg/m ³)	1½" (38 mm)	R-6.3	(1.1)
	2" (51 mm)	R-8.3	(1.5)
	3" (76 mm)	R-12.5	(2.2)
2.25 PCF (36 kg/m ³)	1" (25 mm)	R-4.3	(0.8)
	1½" (38 mm)	R-6.5	(1.1)
	2" (51 mm)	R-8.7	(1.5)
	3" (76 mm)	R-13	(2.3)
3.0 PCF (48 kg/m ³)	1" (25 mm)	R-4.3	(0.8)
	1½" (38 mm)	R-6.5	(1.1)
	2" (51 mm)	R-8.7	(1.5)
	2½" (64 mm)	R-10.9	(1.9)
3.0 PCF (48 kg/m ³)	3" (76 mm)	R-13	(2.3)
	4" (102 mm)	R-17.4	(3.1)
	1" (25 mm)	R-4.3	(0.8)
4.25 PCF † (68 kg/m ³)	1½" (38 mm)	R-6.5	(1.1)
	2" (51 mm)	R-8.7	(1.5)
	2½" (64 mm)	R-10.9	(1.9)
	1" (76 mm)	R-4.5	(0.8)
6.0 PCF † (96 kg/m ³)	1½" (89 mm)	R-6.8	(1.2)
	2" (102 mm)	R-9.1	(1.6)

*Available in widths of 24" (610 mm) and 48" (1,219 mm) and lengths from 36" to 120" (915 mm to 3,048 mm).
†Cartons only.

THERMAL EFFICIENCY | ASTM C177



MEAN TEMPERATURE	1.6 PCF		3.0 PCF		6.0 PCF	
	K	K(SI)	K	K(SI)	K	K(SI)
75° F (24° C)	0.24	0.035	0.23	0.033	0.22	0.032
100° F (38° C)	0.25	0.036	0.24	0.035	0.23	0.033
200° F (93° C)	0.33	0.048	0.29	0.042	0.27	0.039
300° F (149° C)	0.42	0.061	0.37	0.053	0.34	0.049

SOUND ABSORPTION COEFFICIENTS | ASTM C423, TYPE A MOUNTING

DENSITY	FACING	THICKNESS	1/3 OCTAVE BAND CENTER FREQUENCY (CYCLES/SEC.)						NRC
			125	250	500	1000	2000	4000	
1.6 PCF (26 kg/m³)	Plain	1½" (38 mm)	0.19	0.44	0.86	0.98	1.00	1.02	0.80
		2" (51 mm)	0.31	0.57	0.96	1.04	1.03	1.03	0.90
		2½" (64 mm)	0.43	0.82	1.12	1.07	1.04	1.03	1.00
		3" (76 mm)	0.47	0.92	1.17	1.06	1.06	1.04	1.05
2.25 PCF (36 kg/m³)	Plain	1" (25 mm)	0.05	0.24	0.59	0.86	0.97	1.00	0.65
		1½" (38 mm)	0.17	0.49	0.93	1.03	1.03	0.99	0.85
		2" (51 mm)	0.26	0.62	1.05	1.07	1.04	1.05	0.95
	FSK	1" (25 mm)	0.14	0.69	0.81	0.99	0.55	0.27	0.75
2" (51 mm)		0.63	0.76	1.11	0.75	0.42	0.22	0.75	
3.0 PCF (48 kg/m³)	Plain	1" (25 mm)	0.08	0.23	0.62	0.88	0.96	0.99	0.65
		1½" (38 mm)	0.09	0.39	0.89	1.03	1.06	1.01	0.85
		2" (51 mm)	0.29	0.65	1.11	1.13	1.06	1.03	1.00
		3" (76 mm)	0.54	1.01	1.18	1.07	1.07	1.04	1.10
		4" (102 mm)	0.95	1.11	1.17	1.07	1.07	1.06	1.10
	FSK	1" (25 mm)	0.21	0.63	0.84	0.93	0.51	0.22	0.75
		1½" (38 mm)	0.45	0.60	0.99	0.73	0.53	0.27	0.70
		2" (51 mm)	0.67	0.77	0.93	0.74	0.47	0.28	0.75
	ASJ	1" (25 mm)	0.15	0.71	0.65	0.82	0.41	0.16	0.65
		1½" (38 mm)	0.42	0.55	0.91	0.69	0.40	0.23	0.65
2" (51 mm)	0.75	0.71	0.80	0.66	0.41	0.24	0.65		
	0.75	0.71	0.80	0.66	0.41	0.24	0.65		
4.25 PCF (68 kg/m³)	Plain	1" (25 mm)	0.06	0.24	0.69	0.99	1.05	1.02	0.75
	ASJ	2½" (64 mm)	0.75	0.63	0.63	0.62	0.41	0.25	0.55
6.0 PCF (96 kg/m³)	Plain	1" (25 mm)	0.05	0.26	0.77	1.04	1.04	1.03	0.80
		1½" (38 mm)	0.61	0.47	0.78	0.61	0.51	0.35	0.60
		2" (51 mm)	0.13	0.58	1.01	1.05	1.00	1.01	0.90
	FSK	1" (25 mm)	0.23	0.65	0.39	0.48	0.47	0.32	0.50
		1½" (38 mm)	0.61	0.47	0.78	0.61	0.51	0.35	0.60
		2" (51 mm)	0.77	0.50	0.72	0.58	0.53	0.41	0.60
	ASJ	1½" (38 mm)	0.60	0.46	0.62	0.48	0.47	0.31	0.50
		2" (51 mm)	0.77	0.44	0.60	0.50	0.41	0.30	0.50

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