



THERMAFIBER® INDUSTRIAL BOARD

MINERAL WOOL INSULATION



Thermafiber® Industrial Board is an economical, rigid, mineral fiber board insulation that offers excellent thermal and acoustical performance in both hot and cold applications. It conserves energy, maintains process temperatures, provides personnel protection, prevents condensation, and reduces noise emission and transmission. It is available in nominal densities from 4 to 15 lb./cu. ft and is suitable for temperatures up to 1200°F (649°C). On initial start-up only, heat rise should not exceed 15°F per minute to allow binder to dissipate without excessive temperature rise. Thermal conductivity is not affected.

Features

- Used in continuous service up to 1200°F (649°C)
- Easily fabricated and installed
- Non-combustible
- Excellent thermal performance and resiliency
- Dimensionally stable at elevated temperatures
- Non-corrosive

Physical Properties

PROPERTY	TEST METHOD	VALUE	NOMINAL
Density	ASTM C303	Industrial Board 40 Industrial Board 60 Industrial Board 80 Industrial Board 100 Industrial Board 120 Industrial Board 150	4.0 pcf 6.0 pcf 8.0 pcf 10.0 pcf 12.0 pcf 15.0 pcf
Maximum Use Temperature ¹	ASTM C411	up to 1200°F (649°C)	
Compressive Strength (minimum) at 10% deformation	ASTM C165	Industrial Board 40 Industrial Board 60 Industrial Board 80	at 10% 104 lb/ft ² 623 lb/ft ² 1230 lb/ft ²
Linear Shrinkage	ASTM C356	<2.0% at 1200°F (649°C)	
Water Vapor Sorption	ASTM C1104	<0.5% by weight at 120°F (49°C), 95% R.H.	
Fungi Resistance	ASTM C1338	Pass - No Growth	
CORROSION RESISTANCE	TEST METHOD	VALUE	
Corrosion to Copper and Aluminum	ASTM C665	Pass – both metals	
Corrosion to Steel	ASTM C1617	Pass	
Stress Corrosion Evaluation on external stress corrosion cracking tendency of austenitic stainless steel	ASTM C795 and ASTM C692 ²	Pass	
Chemical Analysis for Cl ⁻ , F ⁻ , Na ⁺ , SiO ₃	ASTM C795 and ASTM C871 ²	Results fall within acceptability limits	
FIRE	TEST METHOD	VALUE	
Non-Combustibility	ASTM E136	Pass: Non-combustible as define per NFPA 220	
Non-Combustibility	CAN/ULC S114	Industrial Board 40; Pass Industrial Board 60; Pass Industrial Board 80; Pass	
Surface Burning Characteristics ³	UL 723, ASTM E84 and CAN/ULC S102	Flame Spread Index 0 Smoke Developed 0	

1. Test thickness at: 4" (102mm).

2. Preproduction qualification testing complete and on file. Chemical analysis of each production lot required for total conformance. Certification needs to be specified at time of order.

3. The surface burning characteristics of these products have been determined in accordance with UL 723, ASTM E84 and CAN/ULC-S102. Values are reported to the nearest 5 rating.

Thermal Conductivity

PRODUCT	TESTED TO ASTM C177 (K-VALUE – BTU · IN/HR · FT ² · °F) MEAN TEMPERATURE °F							
	75°	100°	200°	300°	400°	500°	600°	700°
Industrial Board 40	0.24	0.26	0.34	0.42	0.52	0.63	0.76	0.92
Industrial Board 60	0.22	0.24	0.29	0.35	0.42	0.50	0.59	0.71
Industrial Board 80	0.23	0.24	0.29	0.35	0.42	0.50	0.59	0.71
Industrial Board 100	0.23	0.24	0.28	0.32	0.38	0.44	0.51	0.60
Industrial Board 120	0.23	0.24	0.29	0.33	0.38	0.44	0.52	0.60
Industrial Board 150	0.24	0.25	0.28	0.32	0.36	0.41	0.46	0.52

Acoustical Performance

PRODUCT ⁵	TESTED TO ASTM C423 & E795 SOUND ABSORPTION COEFFICIENTS AT OCTAVE BAND CENTER FREQUENCIES (Hz)						
	125	250	500	1000	2000	4000	NRC
Industrial Board 40	0.19	0.83	1.20	1.14	1.04	1.09	1.05
Industrial Board 60	0.22	0.98	1.17	1.11	1.03	1.02	1.05
Industrial Board 80	0.20	1.00	1.16	1.11	1.03	0.99	1.10
Industrial Board 100	0.20	0.96	0.92	0.97	0.96	0.91	0.95
Industrial Board 120	0.30	0.88	0.86	0.95	0.95	0.89	0.90

5. All products tested at 2" thickness.

THICKNESS	PRODUCT: INDUSTRIAL BOARD 80 SOUND ABSORPTION COEFFICIENTS AT OCTAVE BAND CENTER FREQUENCIES (Hz)						
	125	250	500	1000	2000	4000	NRC
1.5	0.12	0.64	1.07	1.10	1.04	1.00	0.95
2	0.20	1.00	1.16	1.11	1.03	0.99	1.10
3	0.24	0.91	1.00	1.05	1.02	0.96	1.00
4	0.67	0.83	0.91	0.99	0.99	1.01	0.95

Installation

Thermafiber, Inc. recommends mechanical attachment of Industrial Board products unless in an enclosed panel. Please contact your sales representative or the Thermafiber Insolutions® technical department for further questions.

Availability

For product availability, please contact your local Owens Corning Area Sales Manager.

Notes

For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via <http://sds.owenscorning.com>.

Standards, Codes Compliance

- ASTM C612, Mineral Fiber Block & Board Thermal Insulation:
 - Industrial Board 40: Type IA, IB, II, III, IVA
 - Industrial Board 60: Type IA, IB, II, III, IVA, IVB
 - Industrial Board 80: Type IA, IB, II, III, IVA, IVB
 - Industrial Board 100: Type IA, IB, II, III, IVA, IVB
 - Industrial Board 120: Type IA, IB, II, III, IVA, IVB
 - Industrial Board 150: Type IA, IB, II, III, IVA, IVB
- ASTM C795, Thermal Insulation For Use Over Austenitic Stainless Steel⁴
- Nuclear Regulatory Commission Guide 1.36, Non-Metallic Thermal Insulation⁴
- Doesn't contain the fire retardant decabrominated diphenyl ether (decaBDE)

4. Preproduction qualification testing complete and on file. Chemical analysis of each production lot required for total conformance. Certification needs to be specified at time of order.

Environmental and Sustainability

Owens Corning is a worldwide leader in building material systems, insulation and composite solutions, delivering a broad range of high-quality products and services. Owens Corning is committed to driving sustainability by delivering solutions, transforming markets and enhancing lives. More information can be found at www.owenscorning.com.

Disclaimer of Liability

Thermafiber, Inc. shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Thermafiber, Inc. liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing within thirty (30) days from date it was or reasonably should have been discovered.



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