

Microlite®
Thermal and Acoustical Insulation

Description

Microlite Fiber Glass Equipment Insulation is a lightweight and highly resilient blanket-type thermal and acoustical insulation made of flame-attenuated glass fibers bonded with a thermosetting resin.

Applications

Microlite is used in a variety of appliance, equipment, and office furniture applications which require high thermal and acoustical efficiency in a minimal space. Ease of fabrication, high tensile strength and resilience, uniform appearance, and resistance to vibration and shakedown are additional qualities.

Advantages

The borosilicate glass fibers that make up Microlite insulation are noncombustible and non-hygroscopic. Microlite does not support fungi or vermin. Microlite is unaffected by oil, grease, and most acids.

The high tensile strength inherent in Microlite blankets helps the product resist damage during fabrication and installation.

Because of their resiliency, high tensile strength, and flexibility, Microlite blankets resist settling, breakdown, sagging from vibration, shakedown, and damage from impact. Microlite equipment insulation forms easily around corners and curved surfaces and is readily cut in die-cut presses or with a knife.

Microlite is compression packaged (VacPac) to significantly reduce volume. The result is potential savings in both freight costs and storage.

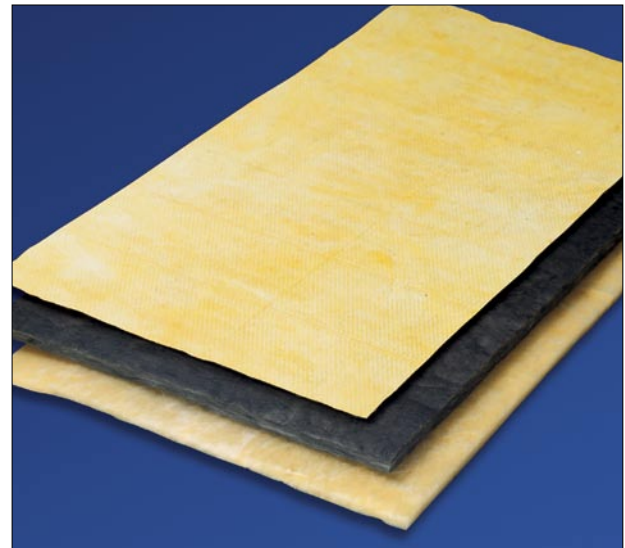
The countless air spaces in Microlite create effective sound absorption as well as thermal properties. Perceived noise from air movement and mechanical equipment is noticeably reduced.

Available Forms

Microlite is available in a variety of densities, thicknesses, widths, and roll lengths. Microlite equipment insulation can be supplied, either amber or black.

Custom Fabrication

In addition, a Johns Manville Approved Fabricator can apply custom facings and fabricate to meet your specific service conditions and performance requirements.



Fabricated Products:

Johns Manville Microlite Fiber Glass Equipment Insulation is manufactured to specific customer width requirements. Contact your Johns Manville sales representative for limitations. Die-cut or fabricated pieces are generally supplied by one of the strategically located Johns Manville fabricators which is specially equipped to provide prompt service to manufacturers in their area.

Applications

- Acoustical Panels/Partitions
- HVAC Equipment
- Pipe Wrap Kits
- Appliances
- Other

Properties

- High Thermal Efficiency
- High Acoustical Performance
- High Tensile Strength
- Uniform Density Distribution
- Excellent Dimensional Uniformity
- Ease of Handling

Specifications

Temperature Limit	350°F (177°C)
Fire Hazard Classification (FHC)	25/50 (per ASTM E 84 and UL 723 and CAN/ULC S102 - M88). Labels supplied when requested on order. Meets NFPA 90A and 90B.

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Standard Thicknesses and Densities

Density		Available Thicknesses		Available Roll Lengths	
pcf	kg/m ³	in.	mm	ft	m
0.60	9	½, ¾	13, 19	300	91.4
		1, 1½, 2	25, 38, 51	150	45.7
		2½, 3	64, 76	50	15.2
0.75	12	½, ¾	13, 19	250	76.2
		1, 1½, 2	25, 38, 51	150	45.7
		2	51	100	30.5
		3, 4	76, 102	50	15.2
1.0	16	¼, ⅜	6, 10	300	91.4
		½, ¾	13, 19	250	76.2
		1, 1½	25, 38	100	30.5
		2, 2½, 3	51, 64, 76	50	15.2
1.5	24	¼, ⅜	6, 10	250	76.2
		½, ¾	13, 19	150	45.7
		1	25	100	30.5
		1½, 2	38, 51	50	15.2
2.0	32	¼, ⅜	6, 10	200	61.0
		½, ¾	13, 19	100	30.5
		1, 1½	25, 38	50	15.2
2.5	40	¼, ⅜	6, 10	200	61.0
		½, ¾	13, 19	100	30.5
		¾, 1	19, 25	50	15.2
3.0	48	¼, ⅜	6, 10	200	61.0
		⅝, ½	10, 13	100	30.5
		¾, 1	19, 25	50	15.2

Acoustical Performance

Type "A" Mounting Sound Absorption Coefficients*

Density		Thicknesses		Frequency (Hz)							
pcf	kg/m ³	in.	mm	125	250	500	1000	2000	4000	NRC**	
0.60	9	½	13	0.06	0.16	0.34	0.52	0.62	0.72	0.40	
		1	25	0.12	0.31	0.56	0.73	0.83	0.88	0.60	
		1½	38	0.19	0.53	0.81	0.91	0.94	0.98	0.80	
1.0	16	2	51	0.23	0.65	0.90	0.98	0.98	1.01	0.90	
		½	13	0.07	0.20	0.34	0.52	0.63	0.65	0.40	
		1	25	0.08	0.34	0.59	0.75	0.86	0.81	0.65	
1.5	24	2	51	0.23	0.58	0.91	0.97	0.98	1.03	0.85	
		½	13	0.05	0.12	0.34	0.57	0.69	0.79	0.45	
2.0	32	1	25	0.09	0.32	0.65	0.87	0.95	1.00	0.70	
		¼	6	0.01	0.05	0.15	0.30	0.50	0.66	0.25	
2.5	40	½	13	0.02	0.13	0.30	0.56	0.71	0.87	0.45	
		1	25	0.11	0.30	0.66	0.88	1.00	1.01	0.70	
		¼	6	0.00	0.05	0.16	0.34	0.52	0.68	0.25	
3.0	48	½	13	0.06	0.16	0.35	0.62	0.79	0.93	0.50	
		¾	19	0.04	0.26	0.56	0.83	0.96	1.01	0.65	
		¼	6	0.03	0.05	0.13	0.30	0.51	0.72	0.25	
3.0	48	½	13	0.01	0.12	0.32	0.64	0.83	0.98	0.50	
		1	25	0.11	0.35	0.77	1.01	1.04	1.05	0.80	

* Tested in accordance with ASTM C 423, Type "A" mounting per ASTM E 795

** Noise Reduction Coefficient

Thermal Conductivity (k) Per ASTM C 518

Density		25°F (-4°C) Mean Temp.		50°F (10°C) Mean Temp.		75°F (24°C) Mean Temp.		100°F (38°C) Mean Temp.		200°F (93°C) Mean Temp.	
pcf	kg/m ³	Btu•in/(hr•ft ² •°F)	W/m•°C	Btu•in/(hr•ft ² •°F)	W/m•°C	Btu•in/(hr•ft ² •°F)	W/m•°C	Btu•in/(hr•ft ² •°F)	W/m•°C	Btu•in/(hr•ft ² •°F)	W/m•°C
0.60	9	0.26	0.037	0.28	0.040	0.30	0.043	0.33	0.048	0.46	0.066
0.75	12	0.25	0.036	0.27	0.039	0.29	0.042	0.31	0.045	0.44	0.063
1.0	16	0.23	0.033	0.25	0.036	0.26	0.037	0.29	0.042	0.38	0.055
1.5	24	0.22	0.032	0.23	0.033	0.24	0.035	0.27	0.039	0.34	0.049
2.0	32	0.21	0.030	0.22	0.032	0.23	0.033	0.24	0.035	0.31	0.045
3.0	48	0.20	0.029	0.21	0.030	0.22	0.032	0.23	0.033	0.30	0.043



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Technical Information
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The physical and chemical properties of Microlite® Fiber Glass Equipment Insulation listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Regional Sales Office nearest you to assure current information. **All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions including Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions, Limited Warranty and Limitation of Remedy, and information on other Johns Manville thermal insulations and systems, call (800) 654-3103.**