



Microlite® AA Blankets

Aircraft Acoustical and Thermal Insulation

Description

Microlite® AA Blankets are lightweight, flexible, thermal and acoustical insulating materials designed for use where space and weight savings are a critical consideration.

Microlite® AA Blankets are furnished with a water repellent thermosetting phenolic binder which is flame resistant and non-punking, and it provides excellent dimensional stability. An additive is used to provide water repellency to the cured blanket for service in areas where high altitude moisture condensation may occur. In circumstances where moisture is not a concern, *plain phenolic binder* can be specified.

Applications

Formed from resin bonded borosilicate 902 biosoluble glass fibers, Microlite® AA Blankets provide optimum thermal and acoustical insulating performance for applications up to 450°F. These blankets help control thermal and acoustical transmission in a variety of aerospace applications, and are particularly well suited for insulating the fuselage wall cavities of commercial and private aircraft.

Advantages

Microlite® AA Blankets offer superior acoustic and thermal performance per unit weight of insulation used. AA blankets are phenolic bonded, noncombustible, and easily meet the most stringent smoke density, smoke toxicity and total heat release standards.

Because Microlite® AA Blankets are non-cellular and moisture-resistant, they will not support biological growth or vermin. They also provide excellent stability with age. The exceptional resiliency of the glass fibers prevents vibrational settling and retains their excellent sound attenuation and thermal properties.



Type:
Flexible Blanket

Temperature Limit:
450°F (232°C)

Available Forms

Standard Microlite® AA Blankets are furnished in different densities, in rolls up to 72" wide, with a water repellent binder. If Microlite® AA with plain phenolic binder is desired, it is available on a made-to-order basis.

Standard Sizes*

Density, lbs./ft ³ (kg./m ³)	Thickness, in. (mm)	Color
0.42 (6.7)	1/2 & 1 (12.7 & 25.4)	Amber
0.60 (9.6)	1/2 & 1 (12.7 & 25.4)	Green
1.00 (16.0)	1 (25.4)	Orange
1.50 (24.0)	3/8 (9.5)	Amber

* Other sizes available upon request.

Applications

- Aerospace
- Fuselage Wall Cavities of Aircraft

Properties

- Superior Acoustics
- Water Repellent
- Low Heat Transfer
- Biosoluble Chemistry
- Noncombustible
- Excellent Dimensional Stability
- Exceptionally Low Smoke and Toxicity

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Thermal Conductivity (Btu-In.)/(Sq. Ft.-Hr.-°F) (ASTM C-518)

Density (lbs./cu. ft.)	Mean Temp. °F (between hot surface and cold surface)					
	50°	75°	100°	200°	300°	400°
.42	.25	.28	.30	.38	.47	.64
.6	.24	.25	.27	.35	.42	.55
1.5	.21	.22	.23	.28	.32	.38

Thermal Conductivity (Watts/Meter-°C) (ASTM C-518)

Density (kg/m³)	Mean Temp. °C (between hot surface and cold surface)					
	10°	24°	38°	93°	149°	204°
6.7	.036	.040	.043	.055	.068	.092
9.6	.035	.036	.039	.051	.061	.079
24.0	.030	.032	.033	.040	.046	.055

Sound Attenuation (Sound Transmission Loss dB) (ASTM E-90)

Density x Thickness	Frequency (Hz)				
3 Layers	250	500	1000	2000	4000
0.42 PCF x 1 inch (6.7kg/m³ x 25mm)	3.9	6.0	10.8	14.5	19.8
0.60 PCF x 1 inch (9.6kg/m³ x 25mm)	5.4	7.2	14.1	20.1	27.2
1.5 PCF x .375 inch (24kg/m³ x 9.5mm)	6.5	7.4	13.8	19.7	26.5

Anechoic Test Chamber



An intensity probe is used for both scanning and point to point mapping of power radiated from a simulated aircraft fuselage. Such techniques measure the attenuation of the overall system as well as the performance of specific elements within the construction.

Compliance with Government & External Specs:

ASTM C-800 (replacing MIL-B-5924), BMS 8-48, DMS 2151, DMS 1967, FAR 25.853, OSU 65/65, DAN 88, ATS 1000.001, Aerospatiale 457.380/69.

■ For Information

Write: Johns Manville Product Information Center, P.O. Box 5108, Denver, Colorado 80217-5108
 Call: Toll free 1-800-654-3103 (outside Colorado); or (303) 978-4900 (inside Colorado)
 Online: www.jm.com

■ Limited Warranty

All Johns Manville products are sold subject to Johns Manville's Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville Limited Warranty and Limitation of Remedy, write to:

Johns Manville Product Information Center
 P.O. Box 5108
 Denver, CO 80217-5108

or call toll free 1-800-654-3103, or contact your local Johns Manville sales representative.



Johns Manville

**Johns Manville
 OEM Insulations Division**

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The physical and chemical properties of Johns Manville Microlite® AA Blankets represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. The data is supplied as a technical service and is subject to change without notice. Check with your Johns Manville representative to obtain current information.