



Unbonded Microlite® B Blanket

Unbonded Fiber Glass Thermal and Acoustical Insulation

Description

Unbonded Microlite® B Blanket is a lightweight, binderless insulating blanket designed for thermal and acoustical applications in which intermittent temperatures may reach as high as 1000°F (538°C). This loosely felted, non-resilient blanket is formed from flame attenuated borosilicate glass fibers without binders and oils and is not dimensioned by thickness.

Applications

Because of its binderless construction, Unbonded Microlite® B Blanket eliminates outgassing or binder vaporization in such applications as cold face insulation in thermal fabrications for aircraft engines or thermal insulation in solar collectors. In all applications, Unbonded Microlite® B Blanket provides excellent thermal and acoustical performance while withstanding temperatures up to 1000°F (538°C) for short-term exposure and up to 850°F (454°C) for continuous exposure.

Advantages

The flame attenuated glass fibers used in Unbonded Microlite® B Blanket provides low heat transfer as well as exceptional sound absorbing characteristics.

The absence of binders and oils eliminates potential contamination from outgassing or binder vaporization during elevated temperature service.

Unbonded Microlite® B Blanket is adaptable to flat, curved and irregular surfaces and are readily cut with ordinary tools. Being unbonded, the blanket should be packed or contained to prevent settling.



Type:

Binderless Blanket

Temperature Limit:

850°F (454°C)

Available Forms

Unbonded Microlite® B Blanket is manufactured by weight. The B-010 size blanket has a nominal weight of .0625 lbs/ft² (306 gm/m²). These blankets are available in standard widths of 36" (91 cm) and 72" (183 cm) and standard roll length of 100 ft (30.5 m). Blanket thickness as shipped in interleaved rolls is approximately 1/4" (6.4 mm).

Applications

- Aircraft Engines
- Solar Collectors

Properties

- No Outgassing
- Low Thermal Transfer
- High Temperature Service
- Excellent Thermal Performance
- Easily Conforms to Irregular Surfaces

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Thermal Conductivity (Btu-in)/(ft²-hr-°F) (ASTM C-518)

| Density, pcf* | Mean Temp. °F (between hot surface and cold surface) | | | | | |
|---------------|--|------|------|------|------|------|
| | 75° | 100° | 200° | 400° | 600° | 800° |
| 1.5 | .23 | .24 | .31 | .48 | .71 | 1.03 |
| 3.0 | .21 | .22 | .26 | .39 | .54 | .72 |
| 4.5 | .21 | .21 | .25 | .34 | .45 | .59 |

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

| Density, kg/m ³ * | Mean Temp. °C (between hot surface and cold surface) | | | | | |
|------------------------------|--|------|------|------|------|------|
| | 24° | 38° | 93° | 204° | 315° | 427° |
| 24.0 | .033 | .035 | .045 | .069 | .103 | .149 |
| 48.0 | .030 | .032 | .038 | .056 | .078 | .104 |
| 72.0 | .030 | .030 | .036 | .049 | .065 | .085 |

*Unbonded Microlite® B Blanket is not dimensioned and is unresilient regarding thickness. Therefore density references are given only as examples to illustrate typical performance at various hypothetical applied densities and is not necessarily the density of the product as produced or shipped.

Linear Shrinkage

When tested in accordance with requirements of ASTM C-356, the linear shrinkage of Unbonded Microlite® B Blanket is not detectable at temperatures up to 450°F (204°C) and will not exceed 0.5% at temperatures up to 800°F (427°C).

■ 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

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The physical and chemical properties of Johns Manville Unbonded Microlite® B Blanket 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.