



# Formaldehyde-free™ Thermal and Acoustical Metal Building Insulation

## Microlite® "L"



### PRODUCT DATA SHEET

#### COMPANY

Johns Manville is committed to creating more comfortable, healthier and energy-efficient indoor environments. We revolutionized the building insulation industry by pioneering the development of Formaldehyde-free™ fiber glass building insulation more than a decade ago. We continue to build on our legacy of innovation with a new Formaldehyde-free™ fiber glass insulation solution that utilizes an innovative bio-based binder, made mostly with rapidly renewable plant-based materials, which continues to offer excellent thermal and acoustical performance as well as improved handling, easier cutting and less dust than our previous product. At JM, we believe that in every detail, materials matter.

#### DESCRIPTION

Microlite® "L" blanket insulation is a certified Formaldehyde-free™ thermal and acoustical fiber glass insulation, specifically designed for lamination to a wide choice of custom vapor-retarding facings. The unique JM manufacturing process provides the Microlite "L" blanket with uniformity that gives the fiber glass blanket a smooth laminating surface.

Microlite "L" insulation is a NAIMA 202-96® Certified Fiber Glass Metal Building Insulation produced in a special manufacturing process to give it the structural integrity it needs to recover thickness after lamination, shipping and installation.

#### USE

**New Construction and Retrofit:** pre-engineered metal buildings – roof and walls

#### AVAILABLE FORMS

**Rolls:** wide unfaced rolls suitable for lamination. Check with your laminator/distributor for available facings.

#### DESIGN CONSIDERATIONS

Microlite "L" is an unfaced fiber glass blanket designed for lamination of various facings for moisture control and provides a desirable finished surface. Microlite "L" complies with NAIMA 202-96 standards to ensure post-lamination R-values. Microlite "L" is available in R-10, 11, 13, 19, 25 and 30.

#### INSTALLATION

Microlite "L" is typically installed between or over the purlins and girts. Microlite "L" may be used in both single and double layer metal building systems and will recover to desired thickness when used with various vapor retarders. Actual recovered thickness will depend on the lamination process. Each Microlite "L" roll is ink-jet labeled with the R-value on the top surface of each roll.

#### PACKAGING

Microlite "L" insulation is compression-packaged for savings in storage and freight costs.

#### RECOMMENDED STORAGE AND TRANSPORT

Store insulation indoors. Keep insulation clean and dry at all times. When transporting, cover completely with a waterproof tarpaulin as necessary.

#### LIMITATIONS OF USE

Check applicable building codes.



#### PERFORMANCE ADVANTAGES

**Formaldehyde Free:** will not off-gas formaldehyde in the indoor environment.

**Thermal Efficiency:** provides effective resistance to heat transfer with R-values up to R-30 (RSI 5.29).

**Sound Control:** reduces transmission of sound through roofs and walls of metal buildings.

**Fire Resistant and Noncombustible:** see Specification Compliance.

**Noncorrosive:** does not accelerate corrosion of pipes, wiring or metal studs.

**Durable:** will not rot, mildew or otherwise deteriorate.

**Resilient:** bonded glass fibers will not pull apart during normal applications and resist settling, breakdown and sagging from vibration.

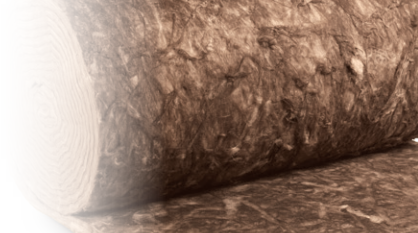
**Flexible:** forms readily around corners and curved surfaces.

#### ENERGY AND ENVIRONMENT





# Formaldehyde-free™ Thermal and Acoustical Metal Building Insulation



## PRODUCT DATA SHEET

## MICROLITE® "L"

### BUILDING CODE COMPLIANCE AND FIRE HAZARD CLASSIFICATION\*

|               | IBC       | FLAME SPREAD | SMOKE DEVELOPED |
|---------------|-----------|--------------|-----------------|
| MICROLITE "L" | ALL TYPES | 25           | 50              |

\*Per ASTM E84.

### STANDARD SIZES\*

| SPECIFICATION COMPLIANCE             | R-VALUE (POST-LAMINATION)**  |                     | THICKNESS (POST-LAMINATION)** | ROLL SIZE     |           |           |                |            |
|--------------------------------------|------------------------------|---------------------|-------------------------------|---------------|-----------|-----------|----------------|------------|
|                                      | (hr•ft <sup>2</sup> •°F/Btu) | m <sup>2</sup> •K/W | in (mm)                       | WIDTH in (mm) |           |           | LENGTH in (mm) |            |
| ASTM C991<br>MICROLITE "L"<br>TYPE 1 | 30                           | 5.29                | 8.7 (221)                     | 36 (914)      | 48 (1219) | 60 (1524) | 72 (1829)      | 27 (8.2)   |
|                                      | 25                           | 4.40                | 7.5 (191)                     | 36 (914)      | 48 (1219) | 60 (1524) | 72 (1829)      | 30 (9.1)   |
|                                      | 19                           | 3.35                | 5.60 (142)                    | 36 (914)      | 48 (1219) | 60 (1524) | 72 (1829)      | 50 (15.2)  |
|                                      | 13                           | 2.29                | 3.85 (98)                     | 36 (914)      | 48 (1219) | 60 (1524) | 72 (1829)      | 75 (22.9)  |
|                                      | 11                           | 1.94                | 3.30 (84)                     |               | 48 (1219) | 60 (1524) | 72 (1829)      | 75 (22.9)  |
|                                      | 10                           | 1.76                | 2.95 (75)                     | 36 (914)      | 48 (1219) | 60 (1524) | 72 (1829)      | 100 (30.5) |

\*Consult your local sales representative or product availability chart for other available sizes and R-values (RSI-values).

\*\*Prelamination thickness and R-value available on product label.

### SOUND ABSORPTION

ASTM C423 Testing With Facing Toward Sound Source (ASTM E795 Type "A" mounting)

#### NOISE REDUCTION COEFFICIENT (NRC)

Rounded Average of the Sound Absorption Coefficients of Four Key Frequencies

| FACED BLANKET |         |       |      |      |
|---------------|---------|-------|------|------|
| TYPE          | UNFACED | VINYL | FSK  | PSK  |
| R-30          | 1.15    | 0.95  | 0.85 | 0.90 |
| R-25          | 1.10    | 0.90  | 0.80 | 0.85 |
| R-19          | 1.10    | 0.90  | 0.85 | 0.90 |
| R-13          | 1.05    | 0.85  | 0.75 | 0.85 |
| R-11          | 1.00    | 0.85  | 0.75 | 0.80 |
| R-10          | 1.00    | 0.85  | 0.75 | 0.80 |

#### SOUND ABSORPTION AVERAGE (SAA)

Average of the Sound Absorption Coefficients of the 12 Middle Frequencies

| FACED BLANKET |         |       |      |      |
|---------------|---------|-------|------|------|
| TYPE          | UNFACED | VINYL | FSK  | PSK  |
| R-30          | 1.12    | 0.93  | 0.86 | 0.90 |
| R-25          | 1.11    | 0.89  | 0.82 | 0.85 |
| R-19          | 1.11    | 0.92  | 0.83 | 0.90 |
| R-13          | 1.04    | 0.86  | 0.77 | 0.82 |
| R-11          | 1.00    | 0.83  | 0.78 | 0.80 |
| R-10          | 0.99    | 0.84  | 0.75 | 0.81 |

Details of absorption by octave frequency available by request.

### SHORT FORM SPECIFICATION

All insulation specified herein will consist of \_\_\_\_\_ Microlite "L" Formaldehyde-free™ fiber glass insulation with an R-value of \_\_\_\_\_ manufactured by Johns Manville. Microlite "L" insulation will be manufactured in accordance with ASTM Specification C991 Type I with the exception of width tolerance; and ASTM E136. This product will have an FHC rating of 25/50 in accordance with ASTM Specification E84 and bear UL labels. Microlite "L" insulation will bear the NAIMA 202-96 (Rev. 2000) Standard identification.



Visit our website at [JM.com](http://JM.com) or call **1-800-654-3103** | 717 17th Street Denver, CO 80202

Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of thermal and acoustical fiber glass insulation for wood, engineered wood and steel frames 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. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the sales office nearest you for current information. 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 or for information on other Johns Manville thermal and acoustical insulation and systems, visit the website or call the 800 number above.

MBI-200 6/13 (Replaces 6/10)

© 2013 Johns Manville