

COMPANY

Johns Manville, a Berkshire Hathaway company, was founded in 1858. Our ownership by Berkshire Hathaway, one of the most admired companies in the world and one of the most financially secure, allows JM to invest for the future. This enables JM to continue delivering the broadest range of insulation products in the industry and offering innovative solutions that meet your needs.

JM FORMALDEHYDE-FREE™ FIBER GLASS INSULATION

JM Formaldehyde-free™ fiberglass building insulation offers the thermal and acoustical performance you expect from fiberglass—and it improves indoor air quality because it's made without formaldehyde. Why is that important? Because the U.S. Environmental Protection Agency (EPA) recommends limiting exposure to formaldehyde as much as possible, and the California Air Resources Board, a division of the California EPA, recommends that homeowners, builders and architects use building materials and insulation made without formaldehyde when building a home or remodeling. JM offers a complete line of certified Formaldehyde-free™ fiberglass building insulation. Visit www.JM.com for more information.

DESCRIPTION

Johns Manville Formaldehyde-free™ Climate Pro A1000 blow-in loose-fill fiberglass insulation is a premium insulation choice for your home. It's blown into attics, nonconforming spaces and hard-to-reach areas, like corners, edges and around framing. When it's applied to the recommended thickness and specifications, you can be assured that your home is energy efficient, with minimal heat loss. It won't settle, decay or provide food for animals or microbes. It's effective for the life of your home.

USE

- **Attics** – can be installed up to a R-70 over ½" (13 mm) ceiling drywall without exceeding ceiling weight limits.
- **Nonconforming spaces** – insulation sprays out of the hose several feet, filling in large areas and small gaps quickly and completely.
- **Wall cavities** – can be installed in walls using the Blow-In-Blanket® System (BIBS®).

INSTALLATION

Equipment for JM Climate Pro A1000 insulation installation is engineered for professional use. Contact your local JM sales representative for an authorized contractor.

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.

SPECIFICATION COMPLIANCE – CLIMATE PRO INSULATION

| |
|--|
| ASTM C764, Type I |
| Surface Burning Characteristics (ASTM E84 and CAN/ULC S102.2) |
| <ul style="list-style-type: none"> • Flame Spread 25 or less • Smoke Developed 50 or less: |
| Critical Radiant Flux (ASTM E970): Greater than 0.12 W/cm² (0.11 Btu/ft²•s) |
| Combustible Characteristics (ASTM E136): Pass |
| Water Vapor Sorption (ASTM C1104): 5% or less by weight |
| Odor Emission (ASTM C1304): Pass |
| Corrosiveness (ASTM C764): Pass |
| Fungi Resistance (ASTM C1338): Pass |
| VOC Emissions (ES Section 01350): Pass |

BUILDING CODE COMPLIANCE AND FIRE HAZARD CLASSIFICATION

| | ICBO | SBCCI | BOCA | IBC/IRC | Flame Spread* | Smoke Developed* |
|------------------------------|-----------|-----------|-----------|-------------------------|---------------|------------------|
| CLIMATE PRO A1000 INSULATION | ALL TYPES | ALL TYPES | ALL TYPES | ALL TYPES/ ALL TYPES | 25 | 50 |

*Meets FHC 25/50 specification per ASTM E84 and CAN/ULC-S102.2.



PERFORMANCE ADVANTAGES

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

Thermally Efficient: provides effective resistance to heat transfer. Unlike cellulose products, JM Climate Pro A1000 insulation does not settle, for no loss of R-value after installation.

Sound Control: reduces transmission of sound through exterior and interior walls, and floor and ceiling assemblies for superior sound control.

Fire Resistant and Noncombustible: See Specification Compliance.

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

Resilient Inorganic Glass Fibers: cannot rot, mildew, or otherwise deteriorate.

Easy to Install: quickly insulates attics or spaces of any size or shape without cutting or fitting.

Complete coverage: effective in tight spaces, areas with large amounts of cross-bridging or areas with small gaps and voids.

ATTIC COVERAGE CHART

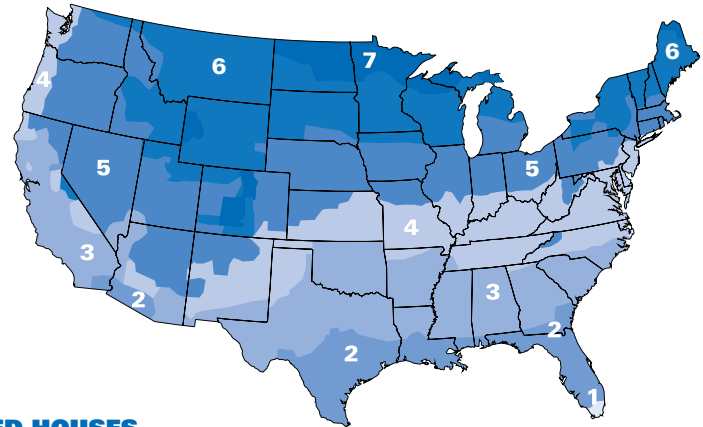
| THERMAL RESISTANCE To obtain insulation resistance of: | MIN. INSTALLED THICKNESS Installed insulation should not be less than: | SETTLED THICKNESS Expected thickness after long-term settling has occurred: | BAGS PER 1,000 SQ. FT. Number of bags per 1,000 sq. ft. of net area should not be less than: | MAXIMUM COVERAGE Contents of the bag should not cover more than: | MINIMUM WEIGHT Weight per square foot should not be less than: |
|--|---|--|---|--|--|
| R-VALUE | INCHES | INCHES | BAGS | FT ² /BAG | LB/FT ² |
| 60 | 19.50 | 19.50 | 28.5 | 35.1 | 0.940 |
| 49 | 16.25 | 16.25 | 22.6 | 44.2 | 0.747 |
| 44 | 14.75 | 14.75 | 20.1 | 49.8 | 0.662 |
| 38 | 12.75 | 12.75 | 16.8 | 59.5 | 0.555 |
| 30 | 10.25 | 10.25 | 13.0 | 77.0 | 0.428 |
| 26 | 9.00 | 9.00 | 11.2 | 89.6 | 0.368 |
| 22 | 7.75 | 7.75 | 9.4 | 106.3 | 0.311 |
| 19 | 6.75 | 6.75 | 8.1 | 124.2 | 0.266 |
| 13 | 4.75 | 4.75 | 5.5 | 182.9 | 0.180 |

The manufacturer recommends that the insulation be installed at these minimum thicknesses and maximum coverages to provide the levels of insulation thermal resistance (R-value) shown.

CLIMATE ZONES

All of Alaska is Zone 7 except for the following boroughs, which are in Zone 8: Bethel, Dellingham, Fairbanks N. Star, Nome, North Slope, Northwest Arctic, Southeast Fairbanks, Wade Hampton and Yukon-Koyukuk.

Zone 1 includes Hawaii, Guam, Puerto Rico and the Virgin Islands.



DOE RECOMMENDED R-VALUES - NEW WOOD-FRAMED HOUSES

| ZONE | HEATING SYSTEM | ATTIC | CATHEDRAL CEILING | WALL | | FLOOR |
|------|---------------------|--------------|-------------------|--------------|----------------------|--------------|
| | | | | CAVITY | INSULATION SHEATHING | |
| 1 | All | R-30 TO R-49 | R-15 TO R-22 | R-13 TO R-15 | None | R-13 |
| 2 | Gas, oil, heat pump | R-30 TO R-60 | R-22 TO R-38 | R-13 TO R-15 | None | R-13 |
| | Electric furnace | | | | | R-19 to R-25 |
| 3 | Gas, oil, heat pump | R-30 TO R-60 | R-22 TO R-38 | R-13 TO R-15 | None | R-25 |
| | Electric furnace | | | | R-2.5 to R-5 | |
| 4 | Gas, oil, heat pump | R-38 TO R-60 | R-30 TO R-38 | R-13 TO R-15 | R-2.5 to R-6 | R-25 to R-30 |
| | Electric furnace | | | | R-5 to R-6 | |
| 5 | Gas, oil, heat pump | R-38 TO R-60 | R-30 TO R-38 | R-13 TO R-15 | R-2.5 to R-6 | R-25 to R-30 |
| | Electric furnace | | R-30 TO R-60 | R-13 TO R-21 | R-5 to R-6 | |
| 6 | All | R-49 TO R-60 | R-30 TO R-60 | R-13 TO R-21 | R-5 to R-6 | R-25 to R-30 |
| 7 | All | R-49 TO R-60 | R-30 TO R-60 | R-13 TO R-21 | R-5 to R-6 | R-25 to R-30 |
| 8 | All | R-49 TO R-60 | R-30 TO R-60 | R-13 TO R-21 | R-5 to R-6 | R-25 to R-30 |

These recommendations are cost-effective levels of insulation based on the best available information on local fuel and materials costs and weather conditions. Consequently, the levels may differ from current local building codes.

Visit our website at www.JM.com or call 800-654-3103 | Building Insulation Division P.O. Box 5108 | Denver, CO 80217-5108

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 fiberglass 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. 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. 717 17th Street Denver CO, 80202