

# Sustainable Insulation® Metal Building Insulation

CertainTeed Fiberglass Metal Building Insulation is a flexible blanket insulation furnished in rolls and intended to be laminated on one side with a suitable vapor retarder. It is used as a thermal and acoustical insulation in the roofs and sidewalls of pre-engineered metal buildings and post frame construction.

## Features & Benefits

Metal Building Insulation reduces transmission of exterior sound to the interior of the building and absorbs reverberating sounds within the building.

## Composition & Materials

The product is composed of tan, uniformly textured, inorganic fibrous glass and formed with a formaldehyde-free binding agent.

## Limitations

This product is designed for use in interior (weather protected) walls and roofs of pre-engineered metal buildings. It should be laminated on a first-in, first-out basis and should be kept dry at all times during processing and end use. After lamination, packaging should not exceed a 5.5:1 compression ratio. For additional information, please refer to the appendix of the NAIMA standard.

## Sizes

Standard available sizes as noted in table below. Contact CertainTeed for non-standard sizes.

## Installation

The vapor retarder on Metal Building Insulation should be installed toward the conditioned spaces in the building. The insulation is normally applied over or between the structural members of the building and held in place by the covering sheets or insulation support system. When using high R-Value systems, it is recommended that the cavity between the exterior metal sheet and the faced fiberglass insulation should be completely filled.

## APPLICABLE STANDARDS, CODE COMPLIANCE

Model Building Codes:

- ICC

Material Standards:

- ASTM C991, Type 1
- NAIMA 202

Fire Safety Standards:

- NFPA 90A, NFPA 90B

## FIRE RESISTANCE

Fire Hazard Classification:

- UL 723, ASTM E84, NFPA 255  
Max. Flame Spread Index: 25  
Max. Developed Index: 50
- CAN/ULC-S102

Non-Combustible:

- ASTM E136 / Meets requirements

## PHYSICAL/CHEMICAL PROPERTIES

| PROPERTY (UNIT)       | TEST                       | VALUE                        |
|-----------------------|----------------------------|------------------------------|
| Thermal Performance:  | ASTM C518 and/or ASTM C177 | 75°F (24°C) mean temperature |
| Water Vapor Sorption: | ASTM C1104                 | ≤ 5% by weight               |
| Corrosiveness:        | ASTM C665, ASTM C1617      | Pass                         |
| Fungi Resistance:     | ASTM C1338                 | Pass,                        |
| Odor Emission:        | ASTM C1304                 | Pass                         |

# Sustainable Insulation® Metal Building Insulation

| AVAILABLE SIZES |                  |     |                |                       |        |      | THERMAL PERFORMANCE                |     |         |                |                 |      |
|-----------------|------------------|-----|----------------|-----------------------|--------|------|------------------------------------|-----|---------|----------------|-----------------|------|
| R-VALUE         | NORMAL THICKNESS |     | WIDTH          |                       | LENGTH |      | NOMINAL THICKNESS (PRE-LAMINATION) |     | R-VALUE |                |                 |      |
| R               | IN.              | MM  | IN.            | MM                    | FT.    | M    | IN.                                | MM. | R       | PRE-LAMINATION | POST-LAMINATION | RSI  |
| 10              | 3-3/8            | 86  | 36, 48, 60, 72 | 914, 1219, 1524, 1829 | 100    | 30.5 | 3-3/8                              | 86  | 10      | 10.8           | 10              | 1.76 |
| 11              | 3-1/4            | 95  | 36, 48, 60, 72 | 914, 1219, 1524, 1829 | 100    | 30.5 | 3-1/4                              | 95  | 11      | 11.9           | 11              | 1.94 |
| 13              | 4-3/8            | 111 | 36, 48, 60, 72 | 914, 1219, 1524, 1829 | 75     | 22.9 | 4-3/8                              | 111 | 13      | 14.0           | 13              | 2.29 |
| 16              | 5-1/4            | 133 | 36, 48, 60, 72 | 914, 1219, 1524, 1829 | 50     | 15.2 | 5-1/4                              | 133 | 16      | 17.3           | 16              | 2.82 |
| 19              | 6-3/8            | 162 | 36, 48, 60, 72 | 914, 1219, 1524, 1829 | 50     | 15.2 | 6-3/8                              | 162 | 19      | 20.5           | 19              | 3.35 |
| 21*             | 6-1/4            | 171 | 36, 48, 60, 72 | 914, 1219, 1524, 1829 | 45     | 13.7 | 6-1/4                              | 171 | 21      | 22.7           | 21              | 3.70 |
| 25*             | 8                | 203 | 36, 48, 60, 72 | 914, 1219, 1524, 1829 | 30     | 9.1  | 8                                  | 203 | 25      | 27.0           | 25              | 4.40 |
| 30*             | 9-1/4            | 235 | 36, 48, 60, 72 | 914, 1219, 1524, 1829 | 25     | 7.6  | 9-1/4                              | 235 | 30      | 32.4           | 30              | 5.30 |

Non-standard widths are available and subject to an upcharge on an individual basis determined by manufacturer's capability, quantity, lead times and packaging availability.

\*R-21, R-25 and R-30 are made to order.

| SOUND ABSORPTION - UNFACED |                |     |                                                             |      |      |      |      |      |      |
|----------------------------|----------------|-----|-------------------------------------------------------------|------|------|------|------|------|------|
| R-VALUE                    | NOM. THICKNESS |     | ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES (HZ) |      |      |      |      |      | NRC  |
| R                          | IN.            | MM  | 125                                                         | 250  | 500  | 1000 | 2000 | 4000 |      |
| 10                         | 3-3/8          | 86  | 0.29                                                        | 0.82 | 1.02 | 0.94 | 0.96 | 0.98 | 0.95 |
| 11                         | 3-1/4          | 95  | 0.39                                                        | 0.91 | 1.01 | 0.92 | 0.93 | 0.98 | 0.95 |
| 13                         | 4-3/8          | 111 | 0.53                                                        | 0.97 | 1.04 | 0.90 | 0.95 | 0.98 | 0.95 |
| 16                         | 5-1/4          | 133 | 0.67                                                        | 1.05 | 1.02 | 0.92 | 0.95 | 0.99 | 1.00 |
| 19                         | 6-3/8          | 162 | 0.89                                                        | 1.22 | 1.02 | 0.98 | 1.01 | 1.00 | 1.05 |

Sound absorption tested in accordance with ASTM C423 using Type A mounting per ASTM E795.

| SOUND TRANSMISSION                                                                                                                 |                                                             |     |     |      |      |      |            |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----|-----|------|------|------|------------|
| CONSTRUCTION TYPE                                                                                                                  | TRANSMISSION LOSS IN DB AT THE OCTAVE BAND FREQUENCIES (HZ) |     |     |      |      |      | STC RATING |
|                                                                                                                                    | 125                                                         | 250 | 500 | 1000 | 2000 | 4000 |            |
| ROOFS                                                                                                                              |                                                             |     |     |      |      |      |            |
| No Insulation                                                                                                                      | 12                                                          | 13  | 19  | 24   | 30   | 32   | 24         |
| R-10 Faced 202-96 Insulation Over the Purlins                                                                                      | 12                                                          | 16  | 26  | 37   | 45   | 49   | 29         |
| R-19 Faced 202-96 Insulation Over the Purlins                                                                                      | 13                                                          | 20  | 30  | 41   | 49   | 51   | 32         |
| 202-96 Insulation Over & Between the Purlins to Fill the Cavity (R-25 Combined)                                                    | 14                                                          | 24  | 34  | 44   | 53   | 56   | 36         |
| WALLS                                                                                                                              |                                                             |     |     |      |      |      |            |
| No Insulation                                                                                                                      | 12                                                          | 14  | 19  | 19   | 20   | 27   | 21         |
| R-10 Faced 202-96 Insulation Over the Girts                                                                                        | 13                                                          | 16  | 25  | 32   | 37   | 46   | 28         |
| R-13 Faced 202-96 Insulation Over the Girts                                                                                        | 13                                                          | 17  | 26  | 33   | 38   | 47   | 29         |
| R-13 Faced 202-96 Insulation Over the Girts<br>3 5/8" Steel Studs on 24" Centers<br>with 1/ 2" Gyp. Board on Interior              | 26                                                          | 40  | 51  | 60   | 64   | 65   | 50         |
| R-13 Faced 202-96 Insulation Over the Girts<br>3 5/8" Steel Studs on 24" Centers<br>with R-11 Batts & 1/ 2" Gyp. Board on Interior | 31                                                          | 43  | 55  | 68   | 73   | 75   | 54         |

Sound Transmission Class (STC) in accordance with ASTM E90.

- Roof construction is 24ga. standing seam roof with 8" Z purlins on 5' centers.

- Wall construction is 26ga. wall panels screwed to 8" Z girts placed on 7' centers.

-Interior metal furring wall studs were 3 5/8" by 25ga. on 24' centers.

## TECHNICAL SERVICES

Technical assistance can be obtained either from the local CertainTeed sales representative, or by calling Sales Support Group at 800-233-8990.

## MAINTENANCE

An inspection and preventative maintenance program for the insulation and vapor retarder system is recommended to ensure optimum performance.

## AVAILABILITY & COST

For availability and cost, contact your local contractor or distributor, or call CertainTeed Sales Support Group at 800-233-8990.

## WARRANTY

In as much as CertainTeed has no control over installation design, installation workmanship, accessory materials or conditions of application, CertainTeed does not warrant the performance or results of any installation containing its products. Full warranty information can be found at [certainteed.com/warranty](http://certainteed.com/warranty).



**CertainTeed**

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