

Rigid Liner Board with ToughGard® Facing

PRODUCT DESCRIPTION

Basic Use: Rigid Liner Board with ToughGard Facing is a high-quality acoustical and thermal board-type insulation used primarily for lining the interior of HVAC sheet metal ducts and plenums to absorb unwanted crosstalk, equipment and air rush noise. This product performs in most types of heating and cooling systems operating at velocities up to 6,000 fpm (30.5 m/s) and temperatures to 250°F (121°C).



Also available in black mat.

Benefits: Rigid Liner Board with ToughGard Facing improves energy efficiency by reducing heat gain or loss. The product can be precision cut using both manual and automatic cutting equipment, and is durable and easy to clean.

Composition and Materials: Composed of glass fibers firmly bonded together with a yellow or black thermosetting resin into a rigid board-type insulation. The air stream surface contains an EPA-registered antimicrobial agent in order to reduce the potential of microbial growth that may affect this product. The antimicrobial properties are intended to protect only this product.

Limitations: Insulation should be kept clean and dry during shipping, storage, installation and system operation.

Sizes: Available sizes as noted in the table on other side. Contact CertainTeed for availability and minimum order quantities.

THERMAL PERFORMANCE

| Product Thickness | | K-Value | | C-Value | | R-Value | |
|-------------------|----|---|---|---|---|---|---|
| | | $\frac{\text{btu}\cdot\text{in}}{\text{h}\cdot\text{ft}^2\cdot\text{°F}}$ | $\frac{\text{W}}{\text{m}\cdot\text{°C}}$ | $\frac{\text{btu}}{\text{h}\cdot\text{ft}^2\cdot\text{°F}}$ | $\frac{\text{W}}{\text{m}^2\cdot\text{°C}}$ | $\frac{\text{btu}}{\text{h}\cdot\text{ft}^2\cdot\text{°F}}$ | $\frac{\text{W}}{\text{m}^2\cdot\text{°C}}$ |
| 1 | 25 | 0.23 | 0.033 | 0.23 | 1.31 | 4.3 | 0.77 |
| 1-1/2 | 38 | | | 0.15 | 0.87 | 6.5 | 1.15 |
| 2 | 51 | | | 0.12 | 0.65 | 8.7 | 1.53 |

Thermal Conductance (C) and resistance (R) values are derived from the material thermal conductivity (K) value. Tested in accordance with ASTM C518 and/or ASTM C177 at 75°F (24°C) mean temperature.

ACOUSTICAL PERFORMANCE

| Product Thickness | | Absorption Coefficients @ Octave Band Frequencies (Hz) | | | | | | NRC |
|-------------------|----|--|------|------|------|------|------|------|
| | | 125 | 250 | 500 | 1000 | 2000 | 4000 | |
| 1 | 25 | 0.07 | 0.28 | 0.71 | 0.90 | 0.93 | 0.93 | 0.70 |
| 1-1/2 | 38 | 0.10 | 0.51 | 0.89 | 0.95 | 0.92 | 0.93 | 0.80 |
| 2 | 51 | 0.17 | 0.76 | 1.05 | 1.02 | 0.95 | 0.96 | 0.95 |

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

| | |
|---------------------|--|
| Product Name | Rigid Liner Board with ToughGard® Facing |
| Manufacturer | CertainTeed Corporation |
| Address | 20 Moores Road Malvern, PA 19355 |
| Phone | 610-893-6000 • 800-233-8990 |
| Website | www.certainteed.com/insulation |

TECHNICAL DATA

Applicable Standards

- Model Building Codes:
 - ICC

Fire Resistance

- Fire Hazard Classification:
 - UL 723, ASTM E84, NFPA 255, CAN/ULC-S102
 - Max Flame Spread Index: 25
 - Max Smoke Developed Index: 50
- Limited Combustible:
 - NFPA 259
 - < 3,500 btu/lb.
- Fire Safety Standards:
 - NFPA 90A, NFPA 90B

Physical/Chemical Properties

- Thermal Performance:
 - See table on left
- Acoustical Performance:
 - See table on left
- Operating Limits:
 - Temperature: ASTM C411
 - Max. 250°F (121°C)
 - Air Velocity: ASTM C1071: Type II, UL 181 Max. 6,000 fpm (30.5 m/s)
- Water Vapor Sorption:
 - ASTM C1104
 - ≤ 3% by weight
- Corrosiveness:
 - ASTM C665
 - Pass testing
- Fungi Resistance:
 - ASTM C1338, ASTM G21
 - No growth
- Water Repellent:
 - ≥ 4 (INDA IST 80.6-92)

INSTALLATION

Rigid Liner Board with ToughGard Facing should be adhered to the sheet metal ductwork using an adhesive meeting the requirements of ASTM C916. The adhesive film coverage should be a minimum 90% of the metal surface. The product should additionally be secured, as required, to the sheet metal ductwork using mechanical fasteners (impact-driven or weld-secured). These fasteners vary in type and length. Fastener length should be such that the Rigid Liner Board's thickness is compressed no more than 10% of its design thickness.

Maximum fastener spacing should be in accordance with NAIMA or SMACNA guidelines.

Rigid Liner Board with ToughGard Facing fabricated duct sections should be kept clean and dry from the point of fabrication through job site installation. Special precautions at the job site may be necessary to accomplish this. The installed lined ductwork should be protected to avoid contamination by water and dirt.

An HVAC system commissioning program should be considered to ensure proper start-up and purging of the duct system.

Design Considerations:

- "Butter" all raw exposed edges.
- High in-duct air turbulence areas may require special procedures (perforated inner metal liner, etc.).
- Metal nosings should be securely installed over transversely oriented liner edges facing air stream at fan discharge and at any interval of lined duct preceded by unlined duct.

Package Labeling: Product will be dual labeled RLB/ACB BLK or RLB/ACB YEL.

Substitution: Rigid Liner Board may be used for non-HVAC applications such as theaters and studios as AcoustaBoard with ToughGard Facing. Please refer to product data sheet 30-25-022 for architectural application.

AVAILABILITY AND COST

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

WARRANTY

Refer to CertainTeed's Limited Warranty for Rigid Liner Board with ToughGard Facing (30-32-113).

MAINTENANCE

An inspection and maintenance program for the HVAC system is recommended to ensure optimum performance. Use NAIMA guidelines for duct cleaning methods and procedures.

TECHNICAL SERVICES

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

| AVAILABLE SIZES | | | | | | | |
|-----------------|--------------|-----------|----------------|-------------------|----|--------------------|-------------------|
| Dimensions | | | | Nominal Thickness | | Density | |
| Width | | Length | | in. | mm | lb/ft ² | kg/m ³ |
| in | mm | in | mm | 1 | 25 | 3.00 | 48 |
| 24 to 48 | 610 to 1,219 | 48 to 120 | 1,219 to 3,048 | 1½ | 38 | | |
| | | | | 2 | 51 | | |

Not all widths and lengths are standard. Please contact CertainTeed for the standard sizes. Made-to-order sizes are available and subject to an upcharge, additional lead time and minimum quantities.



CertainTeed Corporation

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