

CertainTeed

Specification Sheet

ToughGard® R-EP Duct Liner with Enhanced Surface

1. PRODUCT NAME

ToughGard® R-EP Duct Liner with Enhanced Surface

2. MANUFACTURER

CertainTeed Corporation
P.O. Box 860
Valley Forge, PA 19482-0105
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800-233-8990
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3. PRODUCT DESCRIPTION

Basic Use: ToughGard® R-EP Duct Liner with Enhanced Surface is used primarily as an acoustical liner in HVAC sheet metal ducts to absorb unwanted crosstalk, equipment and air rush noise. This product can be used in most types of heating and cooling duct systems, operating at velocities up to 6,000 fpm (30.5 m/s) and temperatures to 250°F (121°C). ToughGard® R-EP with Enhanced Surface provides superior thermal and acoustical properties compared to other duct liners of the same thickness, making it the ideal choice for applications that demand enhanced performance.

Benefits: ToughGard® R-EP Duct Liner with Enhanced Surface is 40% more water repellent than standard duct liner. This product provides excellent thermal properties, exhibits low air flow resistance and meets applicable fire resistance standards and building code requirements. It is durable, easy-to-clean and has a factory-applied edge coating that assures sealing of the transverse edges as per SMACNA and NAIMA Installation Standards.

Composition and Materials: Composed of rotary-type glass fibers firmly bonded together with a thermosetting resin overlaid with an extremely tough and durable fire-resistant, black composite surface on the air stream side.

The air stream surface contains an EPA registered anti-microbial agent in order to reduce the potential of microbial growth that may affect this product. The antimicrobial properties are intended to only protect this product.

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

Sizes: See the table below for available sizes. Contact CertainTeed for availability and minimum order quantities.

4. TECHNICAL DATA

Applicable Standards:

- Model Building Codes:
 - (ICC)
 - California Title 24
- Material Standards
 - (ASTM C1071) Type I
 - CAN/CGSB-51.11-92
- Fire Safety Standards
 - (NFPA 90A, NFPA 90B)

Fire Resistance:

- Fire Hazard Classification:
 - (UL 723, ASTM E84, NFPA 255, CAN/ULC-5102-M88)
Max. Flame Spread Index; 25
Max Smoke Developed Index; 50
- Limited Combustible:
 - (NFPA 259)
< 3500 Btu/lb

Physical/Chemical Properties:

- Thermal Performance:
 - See table on back page.
- Acoustical Performance:
 - See table on back page.
- Operating Limits:
 - Temperature: (ASTM C411)
Max. 250°F (121°C)
 - Air Velocity: (ASTM C1071)
Max. 6,000 fpm (30.5 m/s)



- Water Vapor Sorption:
 - (ASTM C1104)
< 3% by weight
- Corrosion Resistance: (ASTM C665)
 - Pass
- Bacteria Resistance: (ASTM G22)
 - No Growth
- Fungi Resistance:
 - (ASTM C1338 & ASTM G21)
Pass; No Growth
- Water Repellency Rating
 - ≥ 4 (INDA IST 80.6-92)

Quality Assurance: CertainTeed was the first fiber glass insulation manufacturer to have its manufacturing plants, R&D center and corporate headquarters registered to ISO 9001-2000 standards.

5. INSTALLATION

All duct liner shall be installed in accordance with the requirements of the NAIMA Fibrous Glass Duct Liner Standard, or SMACNA HVAC Duct Construction Standard and the project specification.

The liner shall be cut and fitted to assure all joints are neatly and tightly butted with no interruptions or gaps.

All duct liner products shall be

AVAILABLE SIZES					
Nominal Thickness*		Length		Width	
in.	mm	ft.	m	in.	mm
1	25	50-150	15.2-45.7	34-72	864-1829

*Actual finished thickness is 1.10" thick (Nominal 1.0")

adhered to the sheet metal ductwork using an adhesive meeting the requirements of ASTM C916. The adhesive film coverage shall be a minimum 90% of the metal surface. Additionally, secure duct liner as required to the sheet metal ductwork using mechanical fasteners (impact-driven or weld-secured). These fasteners vary in length and type. Mechanical fasteners of the specified type and length shall be used assuring no greater than 10% compression of the liner thickness.

Maximum fastener spacing shall be in accordance with NAIMA or SMACNA standards. ToughGard® R-EP provides clean “battered” transverse edges. However, some circumstances

will require the use of adhesive to “batter” raw exposed liner edges. Final job site “battering” may be required to coat duct cut-ins and/or minor installation damage.

ToughGard® R-EP Duct Liner fabricated duct systems shall be kept clean and dry from the point of fabrication through job site installation and system commissioning. Special precautions at the job site may be necessary to accomplish this.

Design Considerations:

- “Butter” all raw exposed edges
- High, in-duct air turbulence areas may require special procedures, i.e. perforated inner metal liner, etc.

- Metal nosings shall 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.

6. AVAILABILITY AND COST

Manufactured and sold throughout the United States. For availability and cost contact your local distributor, or call CertainTeed Sales Support Group in Valley Forge, PA at 800-233-8990.

7. WARRANTY

Refer to CertainTeed’s One-Year Limited Warranty for ToughGard® R-EP Fiber Glass Duct Liner (30-29-047).

8. MAINTENANCE

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

9. TECHNICAL SERVICES

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

10. FILING SYSTEMS

- Sweet’s Catalog Files: 15080/CER
- CertainTeed Pub. No. 30-36-004
- Additional product information available upon request.

THERMAL PERFORMANCE							
PRODUCT		K-VALUE		C-VALUE		R-VALUE	
Nominal Thickness*		Btu*in	W	Btu	W	h*ft.2*°F	m2*°C
in.	mm	h*ft.2°F	m*°C	h*ft.2*°F	m2*°C	Btu	W
1	25	0.227	0.032	0.227	1.28	4.4	0.77
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.							
*Actual finished thickness is 1.10” thick (Nominal 1.0”)							

ACOUSTICAL PERFORMANCE								
PRODUCT		ABSORPTION COEFFICIENTS						
Nominal Thickness		@ OCTAVE BAND CENTER FREQUENCIES (HZ)						
in.	mm	125	250	500	1000	2000	4000	NRC
1	25	0.09	0.34	0.73	0.90	0.95	0.95	0.75
Sound absorption tested in accordance with ASTM C 423 using Type A mounting per ASTM E 795								
*Actual finished thickness is 1.10” thick (Nominal 1.0”)								



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