



QUIETR[®] DUCT LINER BOARD

QuietR[®] Duct Liner Board is a bonded board of glass fibers designed to be installed inside sheet metal ductwork or plenums with metal fasteners and adhesives. The smooth, fire-resistant airstream surface resists damage during installation and in service. It is ideal for use in large ducts and plenums where air velocities do not exceed 6,000 fpm (30.5 m/s).

Features

- Outstanding thermal and acoustical performance
- Absorbs noise within the duct that helps create quiet and comfortable environments
- Tough, abuse-resistant surface that reduces installation costs because these products resist damage
- Cleanable surface with a black mat facing that provides a smooth, durable surface, making it easy to clean the duct liners using methods and equipment described in North American Insulation Manufacturers Association (NAIMA) Publication AH122, Cleaning Fibrous Glass Insulated Duct Systems: Recommended Practice
- Does not support fungal growth with an EPA registered biocide that protects the airstream surface from microbial growth

Standards, Codes Compliance

- ASTM C1071; Type II Rigid Board
- NFPA 90A and 90B Compliant
- ICC Compliant
- California Title 24
- SMACNA Application Standard for Duct Liners
- NAIMA Fibrous Glass Duct Liner Installation Standard (AH 124)
- Conforms to ASHRAE 62
- Meets requirements of ASTM C1338 and ASTM G21 (fungi test)
- NFPA 259

Technical Information

Mold in duct systems occurs when moisture comes into contact with dirt or dust collected on the duct system surfaces. Proper filters will minimize the collection of dust and dirt, but care needs to be exercised to help prevent water formation in the duct. A properly sized, installed and operated air conditioning unit will minimize the likelihood of water formation. The system must be maintained and operated to ensure that sufficient dehumidification is occurring and that filters are installed and changed as recommended by the equipment manufacturer.

Physical Properties

PROPERTY	TEST	VALUE
Operating Temperature	ASTM C411	250°F (121°C)
Maximum Air Velocity	UL 181 and ASTM C1071 Erosion test	6,000 fpm (30.5 m/s)
Water Vapor Sorption	ASTM C1104	<3% by weight at 120°F (49°C), 95% R.H.
Fungi Resistance	ASTM C1338	Meets requirements
Fungi Resistance	ASTM G21	Meets requirements
Corrosiveness ¹	ASTM C665 Corrosiveness test	Will not cause corrosion greater than caused by sterile cotton on aluminum or steel
Thermal Conductivity (k) at 75°F (λ at 24°C mean)	ASTM C518	Btu·in/hr·ft ² ·°F W/m·°C 0.23 0.033
Surface Burning Characteristics ²	ASTM E84	
Flame Spread	UL 723, and CAN ULC-S102	<25
Smoke Developed		<50

- 1 When wet, coated surfaces of QuietR[®] Duct Liner Board in contact with galvanized steel may cause discoloration of the sheet metal.
- 2 The surface burning characteristics of these products have been determined in accordance with UL 723, ASTM E 84, and CAN/ULC-S102. These standards should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment, which takes into account all of the factors that are pertinent to an assessment of the fire hazard of a particular end use. Values are reported to the nearest 5 rating.

Acoustical Performance per ASTM C423; Type A Mounting

Tested Values — QuietR[®] Duct Liner Board

THICKNESS (IN)	125	250	500	1000	2000	4000	NRC
1.0 (25 mm)	0.04	0.26	0.63	0.91	0.99	0.99	0.70
2.0 (51 mm)	0.16	0.61	0.94	1.04	0.95	0.99	0.90

This data was collected using a limited sample size and are not absolute values. Therefore, reasonable tolerances must be applied. Tests were conducted in accordance with ASTM C423, Mounting A (material applied against a solid backing.)

Insertion Loss dB per ft. of Lined Duct

P/A, FT/FT ²	1" LINER 1/3 OCTAVE BAND CENTER FREQUENCIES, HZ						2" LINER 1/3 OCTAVE BAND CENTER FREQUENCIES, HZ					
	125	250	500	1000	2000	4000	125	250	500	1000	2000	4000
8	0.6	1.5	2.7	5.8	7.4	4.3	0.8	2.9	4.9	7.2	7.4	4.3
6	0.5	1.2	2.3	5.0	5.8	3.6	0.6	2.3	4.2	6.2	5.8	3.6
4	0.4	0.8	1.9	4.0	4.1	2.8	0.5	1.6	3.5	5.0	4.1	2.8
2	0.2	0.5	1.4	2.8	2.2	1.8	0.3	0.9	2.5	3.5	2.2	1.8
1	0.1	0.3	1.0	2.0	1.2	1.2	0.2	0.5	1.8	2.5	1.2	1.2

Data extracted from ASHRAE Handbook, HVAC Applications, Chapter 48 2015
P/A = Duct Perimeter, (ft)/Duct Cross Sectional Area (ft²). Example: 12" x 24" duct,
P/A = 3 ft/ft².

Availability

QuietR[®] Duct Liners are available in the following combinations of thicknesses and types: R-values, hr•ft²•°F/Btu (RSI, m²•°C/W) at 75°F (24°C) mean temperature.

PRODUCT TYPE AND THICKNESS	NOMINAL DENSITY PCF (KG/M ³)	1.0 IN (25 MM)	2.0 IN (50 MM)
QuietR [®] Duct Liner Board	3.0 (48)	4.3 (0.76)	8.7 (1.53)

QuietR[®] Duct Liner Board is available in the following standard sizes: 1" x 48" x 96" (25 mm x 1,219 mm x 2,438 mm), 2" x 48" x 96" (51 mm x 1,219 mm x 2,438 mm). MTO available at Width: 48", Length: 24"-120".

Installation

For complete installation instructions and recommendations, see "QuietR[®] Duct Liner Board and HD-Roll Insulation Installation Instructions" (Pub. No. 10021549).

Certifications and Sustainable Features

- Certified by SCS Global Services to contain an average 53% with minimum 22% post-consumer and balance 31% pre-consumer recycled glass content
- GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg.
- Health Product Declaration[®] for QuietR[®] Duct Liner Board



Environmental and Sustainability

Owens Corning is a worldwide leader in building material systems, insulation, and composite solutions, delivering a broad range of high-quality products and services. Owens Corning is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. More information can be found at www.owenscorning.com.

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Notes

For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via <http://sds.owenscorning.com>.

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