



QuietR® Rotary Duct Liner



Description

Owens Corning® QuietR® Rotary Duct Liner absorbs noise within sheet metal ducts, and contributes to indoor comfort by lowering heat loss or gain through duct walls.

Features

- Absorbs fan and air turbulence noise and reduces popping noises within sheet metal ducts
- Outstanding thermal and acoustical performance
- Bacterial and fungal growth resistant with an EPA registered biocide that helps protect the airstream surface from microbial growth

Physical Properties

Property	Test Method	Value
Operating Temperature	ASTM C411	250°F (121°C)
Maximum Air Velocity	UL 181 Erosion Test ASTM C1071	6,000 fpm (30.5 m/sec)
Water Vapor Sorption (by weight)	ASTM C1104	<3% at 120°F (49°C), 95% R.H.
Fungi Resistance	ASTM C1338	Meets requirements
Fungi Resistance	ASTM G21	Meets requirements
Bacteria Resistance	ASTM G22	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
R-2.2		0.23 0.034
R-4.2		0.24 0.035
R-6.3		0.24 0.035
R-8		0.24 0.035
Surface Burning Characteristics ²	ASTM E84, UL 723, CAN/ULC S102	
Flame Spread		25
Smoke Developed		50

1. When wet, coated surfaces of QuietR® Rotary Duct Liner 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 or CAN/ULC-S102. This standard 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 which are pertinent to an assessment of the fire hazard of a particular end use. Values are reported to the nearest 5 rating. UL 723 and ASTM E84 are the same test methods.

Availability

Thickness		Roll Length		R-Value	
in	mm	ft	m	(hr·ft ² ·°F)/Btu	(m ² ·°C)/W
½	13	100	31	2.2	0.38
1	25	100, 150*	31, 45*	4.2	0.74
1½	38	50, 100	15, 31	6.3	1.11
2	51	50	15	8.0	1.41

*150' (45m) roll is available in select sizes 56" and wider. Ask your area sales manager for more details.

Applications

Limitations

Use of QuietR® Rotary Duct Liner is not recommended for the following applications:

- With wood or coal fired equipment, or equipment of any type which does not include automatic maximum temperature controls and where operating temperatures of 250°F (121°C) may be exceeded
- In kitchen or fume exhaust ducts, or ducts conveying solids or corrosive gases
- In any application where the duct liner may come in direct contact with liquid water (such as cooling coils, humidifiers, and evaporative coolers) unless protected from the water source
- Inside fire damper sleeves
- Immediately adjacent to high temperature heating coils without radiation protection

Acoustic Performance

Tested Values—QuietR® Duct Liner							
Sound absorption coefficients at octave band center frequencies (Hz)							
Thickness in (mm)	125	250	500	1000	2000	4000	NRC
½ (13)	0.04	0.12	0.39	0.64	0.78	0.74	0.50
1 (25)	0.05	0.30	0.60	0.87	0.98	1.05	0.70
1½ (38)	0.05	0.47	0.85	1.01	1.01	1.01	0.85
2 (51)	0.12	0.66	1.04	1.08	1.04	1.07	0.95

These data were collected using a limited sample size and are not absolute values. Reasonable tolerances must therefore be applied. All tests were conducted in accordance with ASTM C423, Mounting A (material placed against a solid backing such as a block wall). For more information, call your Owens Corning Representative.

Insertion Loss, dB per ft of Lined Duct

P/A, ft/ft ²	1" Liner						2" Liner					
	Octave band center frequencies, Hz						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	0.8	2.3	3.3	2.0	1.7
1	0.1	0.1	1.0	2.0	1.2	1.2	0.2	0.5	1.8	2.3	1.1	1.1

Duct Liner Insertion Loss—Data extracted from ASHRAE Handbook, HVAC Applications, Chapter 43, 1999
 P/A = duct perimeter, ft/duct cross sectional area (ft²). Example: 12" x 12", P/A = 4 (1/ft). For more information, call your Owens Corning Representative.

Standards, Codes Compliance

- ASTM C1071, Type I, Flexible (replaces obsolete Federal Specification HH-1-545B.)
- NFPA 90A/90B
- ICC Compliant
- California Title 24
- SMACNA Application Standard for Duct Liners
- NAIMA Fibrous Glass Duct Liner Installation Standard
- Conforms to ASHRAE 62-2001

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.

Notes

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

Certifications and Sustainable Features

- Certified by SCS Global Services to contain a minimum of 53% recycled glass content, 31% pre-consumer and 22% post-consumer
- 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*
- Bronze Level Material Health Certificate from Cradle to Cradle Products Innovation Institute



*Duct Liner up to and including 1".



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SCS Global Services provides independent verification of recycled content in building materials and verifies recycled content claims made by manufacturers. For more information, visit www.SCSglobalservices.com.

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