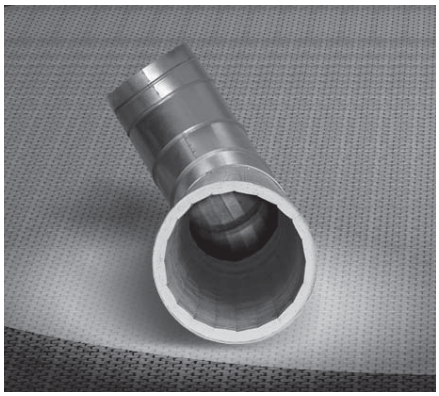
QuietZone®
Spiral Duct Liner

Product Data Sheet



Typical Physical Properties

Property	Test Method	Values
Maximum Temperature Limits	UL 181	
Internal		250°F (121°C)
External		150°F (66°C)
Maximum Air Velocity	UL 181 Erosion Test	6,000 fpm (30.5 m/s)
Water Vapor Sorption	ASTM C 1104	<3% by weight at 120°F (49°C), 95% R.H.
Mold Growth	UL 181	Meets Requirements
Fungi Resistance	ASTM G 21	Meets Requirements
Bacteria Resistance	ASTM G 22	Meets Requirements
Surface Burning Characteristics	UL 723[1]	
Flame Spread		<25
Smoke Developed		<50

1. The surface burning characteristics of these products have been determined in accordance with UL 723. 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. ASTM E 84, UL 723, and NFPA 255 are considered by most officials to be synonymous surface burning test methods.

Description

QuietZone® Spiral Duct Liner enhances indoor environmental quality by absorbing noise and by lowering heat loss or gain through duct walls.

Key Features

- Outstanding thermal and acoustical performance.
- Cleanable surface with a black mat facing that provides a smooth, durable surface making it easier 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.
- Bacterial and fungal growth resistant with an EPA registered biocide that protects the airstream surface from microbial growth.

Product Applications

Limitations

QuietZone® Spiral Duct Liner is not recommended for the following applications:

A. Ducts which will be subjected to operating temperatures exceeding 250°F (inside surface).

B. Ducts which will be subjected to temperatures exceeding 150°F on the outside surface.

C. Kitchen or fume exhaust ducts or to convey solids or corrosive gases.

D. Burying in concrete or buried below grade.

E. Installation immediately adjacent to high-temperature electric heating coils without radiation protection and to equipment such as evaporative coolers, humidifiers, cooling coils and outside intakes.

F. With coal or wood-fueled equipment, or with equipment of any type which does not include automatic maximum temperature controls.

G. Ducts which will be subject to liquid water, liner should be protected with a sheet metal sleeve and drip pan adjacent.

H. Inside fire damper sleeves.

I. When duct systems run through unconditioned space and are used for cooling only (when heating is from another source), register openings must be tightly sealed to prevent accumulation of water vapor in the duct system during the heating season.

Installation

Refer to Owens Corning™ QuietZone® Spiral Duct Liner installation manual for proper installation of the liner.

When required, duct liner coating should be designed for HVAC interior ductwork that contains an EPA-registered antimicrobial (biocide). The coating is applied to the edges, fabrication cuts, and repair of airstream surface when needed.

Technical Information

Tips to Avoid Mold Growth in Ducts

Mold in duct systems occurs when moisture comes into

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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 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 insure that sufficient dehumidification is occurring and that filters are installed and changed as recommended by the equipment manufacturer.

Standards, Codes Compliance

- National Fire Protection Association Standards NFPA 90A/90B
- ICC International Mechanical Code
- NYC MEA# 186-69
- Meets requirements of ASTM C 1338, ASTM G 21, (fungi test) and ASTM G 22 (bacteria test).

Certifications and Sustainable Features of QuietZone® Spiral Duct Liner

- Certified by Scientific Certification Systems to contain a minimum of 57% recycled glass content
- Certified to meet indoor air quality standards under the stringent GREENGUARD Indoor Air Quality Certification Program℠, and the GREENGUARD Children & Schools Certification Program℠

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.sustainability.owenscorning.com.

Notes:

QuietZone® Spiral Duct Liner is taylored to fit your specific duct size, so compression at grooves and joints is kept to a minimum, providing consistent thermal performance throughout the entire duct system.

Product Availability

QuietZone® Spiral Duct Liner is available in the following thickness and board sizes:

Thickness
48" x 120" x 1" thickness (1,220mm x 3,048mm x 25mm)
48" x 120" x 1½" thickness (1,220mm x 3,048mm x 38mm)

Thermal Performance

at 75°F (24°C) Mean Temperature

	1" (25mm)	1½" (38mm)
R-value: ft^2•°F/BTU (RSI: m^2•°C/W)	4.3 (0.76)	6.5 (1.15)
k-value: BTU•in/hr•ft^2•°F (I W/m^2•°C)	0.23 (0.033)	0.23 (0.033)

Acoustical Performance

Sound absorption coefficients at octave band center frequencies, Hz.

Thickness	125	250	500	1000	2000	4000	NRC
1"	0.08	0.19	0.69	0.94	0.99	0.98	0.70
1½"	**0.12**	0.33	0.92	1.04	1.03	1.02	0.85

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 C 423, Mounting A (material applied against a solid backing.)

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