

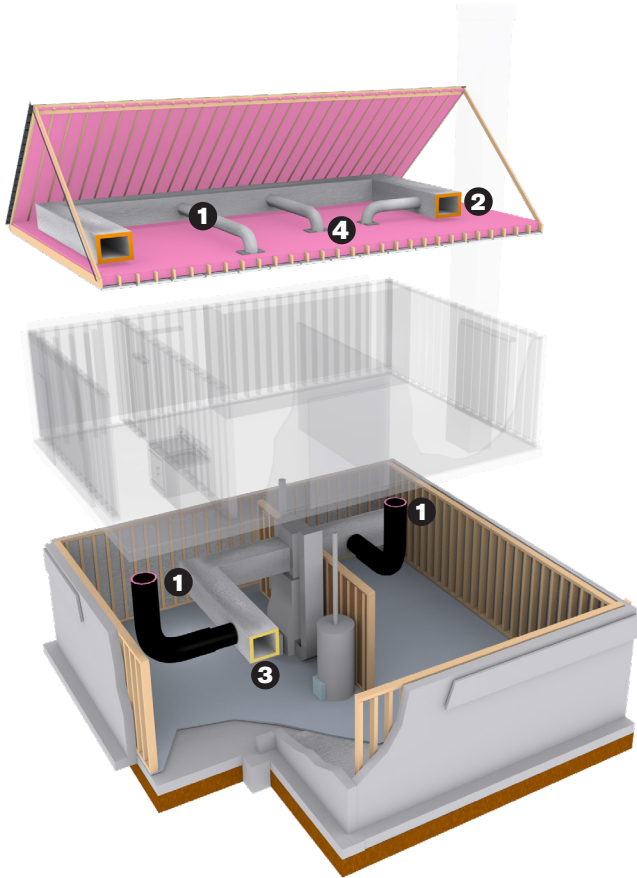
# AIR DISTRIBUTION SOLUTIONS

**QUIETR® | ECOTOUCH® | SOFTR® | PROCAT®**





# Owens Corning® Air Distribution Solutions

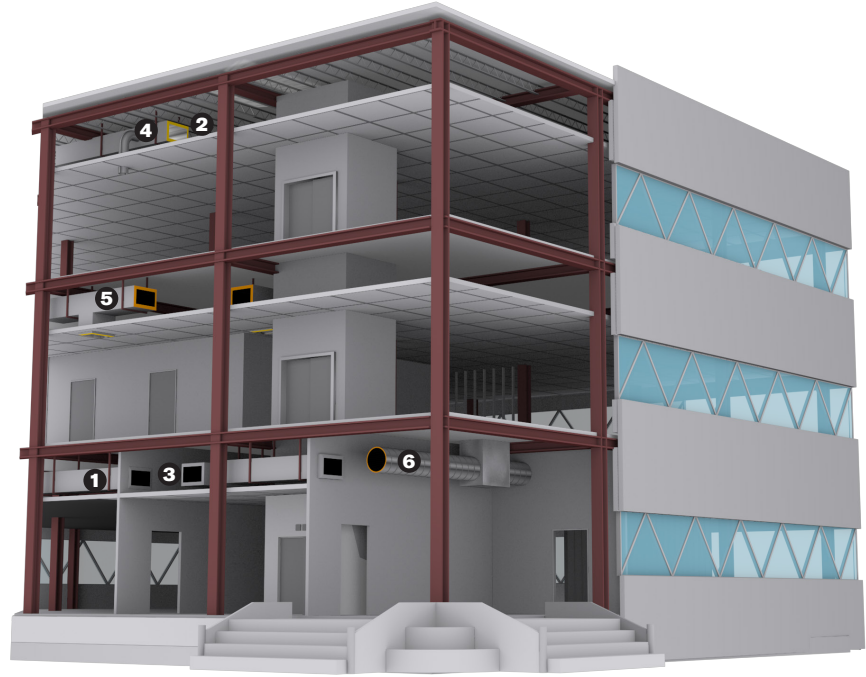


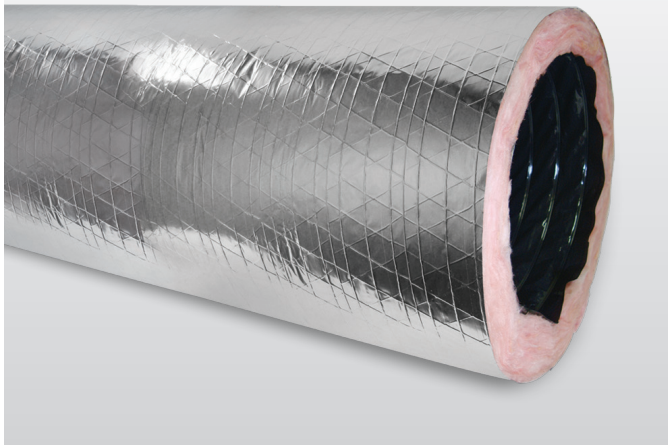
## Residential HVAC Products

- ❶ ECOTOUCH® INSULATION FOR FLEXIBLE DUCT
- ❷ QUIETR® DUCT BOARD
- ❸ SOFTR® DUCT WRAP FRK
- ❹ PROCAT® BLOWN-IN INSULATION SYSTEM

## Commercial HVAC Products

- ❶ QUIETR® DUCT LINER BOARD / QUIETR® DUCT LINER HD-ROLL
- ❷ SOFTR® DUCT WRAP FRK
- ❸ QUIETR® ROTARY DUCT LINER
- ❹ ECOTOUCH® INSULATION FOR FLEXIBLE DUCT
- ❺ QUIETR® DUCT BOARD
- ❻ QUIETR® SPIRAL DUCT LINER





# Product Details



## EcoTouch® Insulation for Flexible Duct

Owens Corning® EcoTouch® Insulation for Flexible Duct is a lightweight, flexible, resilient thermal and acoustical insulation made of inorganic glass fibers bonded with a thermosetting resin.

### Key Features

- Reduces equipment and air movement noise
- Excellent thermal performance
- Compression packaging speeds job site handling and installation
- Easy fabrication
- Made in the U.S.A.

### Standards, Codes Compliance

- Complies with the property requirements of ASTM C 553, Type I

### Availability

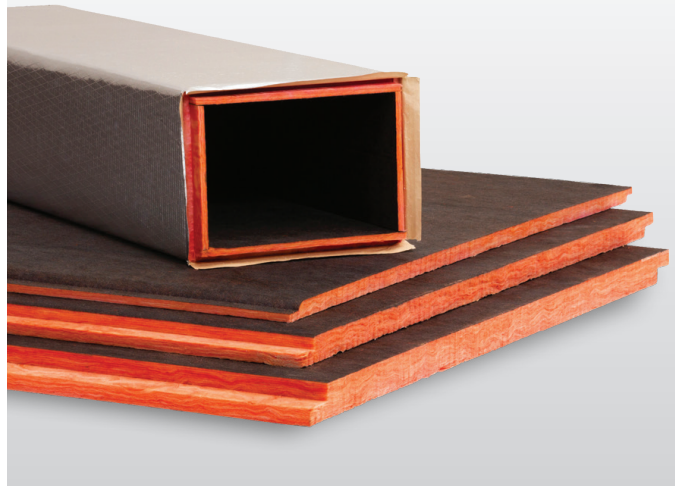
Dimensions	R-Value	Out of Package	Min. Installed Use	Installed k-value
Thickness (in)	R 4.2	1¼"	1⅝"	0.26
	R 6	2"	1⅞"	0.27
	R 8	2⅝"	2¼"	0.28
	R 13 <sup>1</sup>	4"	3¾"	0.28
Standard widths	Available for each duct size for R-value			
Length (ft)	R 4.2	300' (2 x 150')		
	R 6	250' (2 x 125')		
	R 8	200' (2 x 100')		
	R 13 <sup>1</sup>	125'		
Packaging	Compression packaged			

1. To achieve R13, use two layers of R6.

### Physical Properties

Property	Test Method	Value
Thermal Conductivity (k) (Btu·in/ft <sup>2</sup> ·hr·°F) @ 75°F mean temperature	ASTM C177	0.29
Fire Hazard Classification <sup>1</sup>	UL 723, ASTM E84	Flame Spread ≤ 25 Smoke Development ≤ 50
Mold Resistance	UL 181	Meets Requirements
Noise Reduction Coefficient	ASTM C423 Mounting A	0.65

1. The surface burning characteristics of this product have been determined in accordance with UL 723 (ASTM E84). 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 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 five rating.



## QuietR® Duct Board

Owens Corning® QuietR® Duct Board is a rigid, resin bonded fibrous glass board with a tough, damage-resistant, flame retardant, reinforced aluminum foil (FRK) facing; with a durable mat air stream surface.

### Key Features

- Absorbs noise and reduces popping noises caused by expansion, contraction and vibration
- Assured thermal R-value performance
- Bacterial and fungal growth resistant with an EPA registered biocide that helps protect the air stream surface from microbial growth
- Thermal/acoustical insulation board plus jacket forms a single component duct system, thus reducing inspection time
- Lightweight boards are easier to transport and handle than insulated sheet metal ducts
- Virtually eliminates air leakage thus saving energy\* and removing the need for system overdesign

### Standards, Codes Compliance

- Meets UL 181 Class 1 Air Ducts
- Meets NFPA 90A/90B
- Meets ICC International Mechanical Code, Corps of Engineers Guide Spec.
- Supported by NAIMA and SMACNA industry standards
- Meets requirements of UL 181 and ASTM C 1338 (mold growth), ASTM G 21 (fungi test) and ASTM G 22 (bacteria test)

### Availability

Type	Thickness	Density, pcf (kg/m <sup>3</sup> )
Type 475	1" (25mm)	4.4 (70)
Type 800	1½" (38mm)	3.8 (61)
Type 1400	2" (51mm)	3.8 (61)

Type designates board stiffness defined by flexural rigidity. Type selection depends on duct size, pressure and reinforcement schedule. The 1½" (38mm) and 2" (51mm) thickness provides superior thermal value.

### Physical Properties

Property	Test Method	Value
Maximum Operating Temperature Limits	UL 181/ULC S110	Internal: 265°F (129.4°C) External: 150°F (66°C)
Maximum Air Velocity	UL 181/ULC S110 Erosion Test	6,000 fpm (30.5 m/s)
Static Pressure Limit	UL 181/ULC S110	±2 in. w.g. (500 Pa)
Water Vapor Sorption	ASTM C1104	<3% at 120°F (49°C), 95% R.H.
Mold Growth	UL 181/ULC S110	Meets requirements
Fungi Resistance	ASTM G21	Meets requirements
Bacteria Resistance	ASTM G22	Meets requirements
Surface Burning Characteristics <sup>1</sup> Flame Spread Smoke Developed	UL 723/ULC S102	< 25 <sup>1</sup> < 50
Fire Retardancy	UL 181/ULC S110	Flame Penetration 30 min.

\*Savings vary. Find out why in the sellers fact sheet on R-values. Higher R-values mean greater insulating power.

1. The surface burning characteristics of these products have been determined in accordance with UL 723/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.  
2. GREENGUARD certification is for boards 1" or less in thickness.



## ProCat® Professional Loosefill Insulation System

ProCat® Insulation is an unbonded loosefill fiberglass™ thermal insulation. It is designed for use exclusively with the ProCat® machine.

### Key Features

- The ProCat® machine has a “dense mode” setting to enable installation of ProCat® insulation at higher R-value in the eaves, where height may be limited
- Owens Corning® Loosefill Insulation has received the Cradle to Cradle Products Innovation Institute’s Platinum Level Material Health Certificate<sup>1</sup>
- ProCat® Insulation is intended for use in both “open” applications, such as the floor of vented attics, and in “closed cavity” applications, such as walls and floors between stories of a house
- ProCat® Insulation can be used in both existing and new construction

### Standards, Codes Compliance

- ProCat® Insulation is manufactured in accordance with ASTM C764
- ProCat® Insulation is certified by the State of California, Dept. of Consumer Affairs, Bureau of Home Furnishings and Thermal Insulation as meeting the requirements of the California Standards for Insulating Material
- ProCat® Insulation meets requirements of the State of Minnesota Standards for Insulation Materials and Installation

<sup>1</sup> This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions, but does not by itself incorporate all factors required for fire-hazard or fire-risk assessment of the materials, products, or assemblies under actual fire conditions. However, the results of these tests may be used as elements of a fire risk assessment that takes into account all of the factors pertinent to an assessment of the fire hazard of a particular end use. Values are reported to the nearest five (5) rating.

### Availability

**ProCat®** Net Weight 33.5 lbs.

R-Value	Bags per 1000 Sq.Ft.	Maximum Net Coverage, Sq. Ft.	Minimum Weight/ Lb /Sq. Ft.	Minimum Initial Installed Thickness in Inches	Minimum Settled Thickness in Inches
13	5.1	198.0	0.169	4.75	4.75
19	7.8	128.7	0.260	7.00	7.00
22	9.0	110.6	0.303	8.00	8.00
26	10.7	93.5	0.358	9.25	9.25
30	12.4	80.6	0.416	10.50	10.50
38	16.4	60.9	0.550	13.25	13.25
44	19.1	52.3	0.641	15.00	15.00
49	21.5	46.4	0.722	16.50	16.50
60	27.1	36.9	0.908	19.75	19.75

**ProCat® Walls** Net Weight 33.5 lbs.

R-Value	Minimum Bags per 1000 Sq.Ft.	Maximum Coverage Per Bag in Sq. Ft.	Minimum Weight in Lb / Sq. Ft.	Minimum Initial Installed Thickness in Inches	Installed Density Lb / Cubic Ft.
14	11.3	90.2	0.379	3.5	1.3
15	13.1	78.1	0.438	3.5	1.5
22	17.8	57.4	0.596	5.5	1.3
24	24.7	41.4	0.825	5.5	1.8

**ProCat® Dense** Net Weight 33.5 lbs.

R-Value	Additional Bags Required per 100 ft of Roof Line		
	4:12 Roof Pitch	5:12 Roof Pitch	6:12 Roof Pitch
30	1.2	1	0.8
49	3.6	3	2.4
60	5.5	4.5	3.6

### Physical Properties

Property	Test Method	(Unit) Value
Thermal resistance	ASTM C518 & ASTM C687	(See coverage charts)
Surface Burning Characteristics		
flame spread / smoke developed	ASTM E84 <sup>1</sup>	0 / 0
flame spread / smoke developed	Can/ULC S102.2	0 / 0
Critical Radiant Flux (W/cm <sup>2</sup> )	ASTM E970	>0.12
Combustion characteristics	ASTM E136	Noncombustible
Water Vapor Sorption (by weight)	ASTM C1104/ C1104M	<5%
Odor Emission	ASTM C1304	Pass
Corrosion Resistance	ASTM C665, part 13.8	Pass
Fungi resistance	ASTM C1338	Pass



## QuietR® Rotary Duct Liner

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. It is designed to be installed inside sheet metal ductwork or plenums with metal fasteners and adhesives. Ideal for use in large ducts and plenums where air velocities do not exceed 6,000 fpm (30.5 m/s).

### Key Features

- Outstanding thermal and acoustical performance
- Absorbs fan and air turbulence noise and reduces popping noises within sheet metal ducts
- Strong, dark veil with a durable, cleanable surface designed to sustain the high demands of fast production
- Flexible fiberglass roll allows shops to fabricate and insulate duct fittings without additional cutting
- Bacterial and fungal growth resistant with an EPA registered biocide that helps protect the airstream surface from microbial growth

### Standards, Codes Compliance

- ASTM C1071, Type I, Flexible (replaces obsolete Federal Specification HH-1-545B.)
- Meets 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

### Availability

Thickness		Roll Length		R-Value	
in	mm	ft	m	(hr·ft <sup>2</sup> ·°F)/Btu	(m <sup>2</sup> ·°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

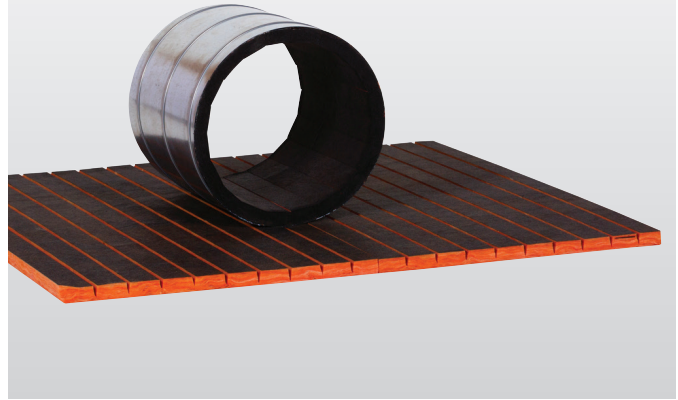
\*150' (45m) roll is available in select sizes 56" and wider. Ask your area sales manager for more details.

### 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/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		
Bacteria Resistance	ASTM G22	Meets requirements		
Corrosiveness <sup>1</sup>	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 <sup>2</sup> ·°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 <sup>2</sup> Flame Spread Smoke Developed	ASTM E84, UL 723, CAN/ULC S102	25 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.



## QuietR® Spiral Duct Liner

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

### Key Features

- Outstanding thermal and acoustical performance
- Economical, cost effective alternative to round double-wall configuration air ducts
- 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

### Standards, Codes Compliance

- ASTM C1071; Type II-Board
- NFPA 90A and 90B Compliant
- ICC International Mechanical Code
- Meets requirements of ASTM C 1338, UL 181, ASTM G 21 (fungi test), and ASTM G 22 (bacteria test)

### Availability

#### Thickness

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

48" x 120" x 1 1/2" thickness (1,220mm x 3,048mm x 38mm)

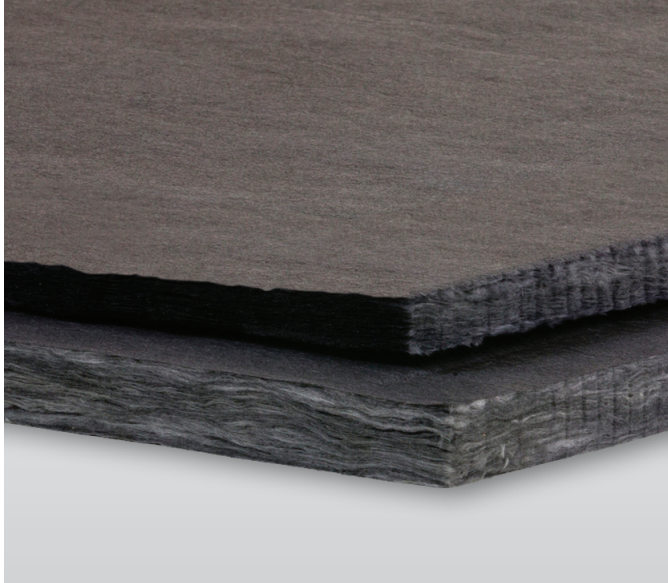
48" x 120" x 2" thickness (1,220mm x 3,048mm x 51mm)

### Physical Properties

Property	Test Method	Value	
Maximum Temperature Limits	UL 181	Internal	265°F (129.4°C)
		External	150°F (66°C)
Maximum Air Velocity	UL 181 Erosion Test	5,000 fpm (25.4 m/sec)	
Water Vapor Sorption	ASTM C1104	<3% by weight at 120°F (49°C), 95% R.H.	
Mold Growth	UL 181	Meets requirements	
Mold Growth	ASTM C1338	Meets requirements	
Fungi Resistance	ASTM G21	Meets requirements	
Bacteria Resistance	ASTM G22	Meets requirements	
Surface Burning Characteristic- Flame Spread	UL 723 <sup>1</sup>	<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 E84, UL 723, and NFPA 255 are considered by most officials to be synonymous surface burning test methods.





## 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. It is ideal for use in large ducts and plenums where air velocities do not exceed 6,000 fpm (30.5 m/s).**

### Key Features

- Outstanding thermal and acoustical performance
- Absorbs noise within the duct that helps create quiet and comfortable environments
- Abuse resistant surface reduces installation costs by preventing product damage
- Cleanable surface with a black mat facing that provides a smooth, durable surface making it easy to clean the duct liners
- Does not support bacterial and fungal growth with an EPA registered biocide that protects the airstream surface from microbial growth

### Standards, Codes Compliance

- ASTM C1071; Type II-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 62-2001
- Meets requirements of ASTM C 1338, ASTM G 21 (fungi test), and ASTM G 22 (bacteria test)

### Availability

QuietR® Duct Liners are available in the following combinations of thicknesses and types: R-values, hr•ft<sup>2</sup>•°F/Btu (RSI, m<sup>2</sup>•°C/W) at 75°F (24°C) mean temperature

Product Type and Thickness	Nominal Density pcf (kg/m <sup>3</sup> )	1.0 in (25mm)	2.0 in (51mm)
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" (25mm x 1219mm x 2438mm), 2" x 48" x 96" (51mm x 1219mm x 2438mm). MTO available at Width: 48", Length: 24"-120".

### Physical Properties

Property	Test Method	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
Bacteria Resistance	ASTM G22	Meets requirements
Corrosiveness <sup>1</sup>	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 <sup>2</sup> •°F 0.23      W/m•°C (0.033)
Surface Burning Characteristics <sup>2</sup> Flame Spread Smoke Developed	ASTM E84, NFPA 255, UL 723, CAN/ULC-S102	25 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, NFPA 255, 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 which are pertinent to an assessment of the fire hazard of a particular end use. Values are reported to the nearest 5 rating.



## QuietR® Duct Liner HD-Roll

QuietR® Duct Liner HD-Roll is a high density roll designed to be installed inside sheet metal ductwork or plenums with metal fasteners and adhesives. It is ideal for use in large ducts and plenums where air velocities do not exceed 6,000 fpm (30.5 m/s).

### Key Features

- Outstanding thermal and acoustical performance
- Absorbs noise within the duct that helps create quiet and comfortable environments
- Abuse resistant surface reduces installation costs by preventing product damage
- Cleanable surface with a black mat facing that provides a smooth, durable surface making it easy to clean the duct liners
- Does not support bacterial and fungal growth with an EPA registered biocide that protects the airstream surface from microbial growth

### Standards, Codes Compliance

- ASTM C1071; Type I Blanket
- 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 62-2001
- Meets requirements of ASTM C 1338, ASTM G 21 (fungi test), and ASTM G 22 (bacteria test)

### Availability

R-values, hr·ft<sup>2</sup>·°F/Btu (RSI, m<sup>2</sup>·°C/W) at 75°F (24°C) mean temperature

Product Type and Thickness	Nominal Density pcf (kg/m <sup>3</sup> )	1.0 in (25mm)
QuietR® Duct Liner HD-Roll	3.0 (48)	4.3 (0.76)

QuietR® Duct Liner HD-Roll is available in 1" thickness, 50 ft. (15.2 m) length and at selected widths.

### 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/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
Bacteria Resistance	ASTM G22	Meets requirements
Corrosiveness <sup>1</sup>	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 <sup>2</sup> ·°F 0.23      W/m·°C (0.033)
Surface Burning Characteristics <sup>2</sup> Flame Spread Smoke Developed	ASTM E84, NFPA 255, UL 723, CAN/ULC S102	25 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, NFPA 255, 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 which are pertinent to an assessment of the fire hazard of a particular end use. Values are reported to the nearest 5 rating.



## SOFTR® Duct Wrap FRK

**SOFTR® Duct Wrap is a blanket of glass fiber insulation factory-laminated to FRK vapor retarder facing. A 2" (51mm) stapling and taping flange is provided on one edge. This product is designed to meet existing performance standards such as NFPA 90A and 90B and other mechanical and energy codes.**

### Key Features

- Flexible and easy to install
- Foil Reinforced Kraft (FRK) facing is easy to clean
- Condensation control
- Increased comfort control

### Standards, Codes Compliance

- ASTM C 1290, Flexible Fibrous Glass Blanket Insulation Used to Externally Insulate HVAC Ducts, Type III
- ASTM C 1136, Flexible Low Permeance Vapor Retarders for Thermal Insulation, Type II (facing only)
- ASTM C 553<sup>1</sup> Mineral Fiber Thermal Insulation: Type I – Fiberglas™ Duct Wrap Type 75; Type II – SOFTR® Duct Wrap FRK Types 100 and 150. Operating temperatures to 250°F (121°C) and thermal values to 150°F (66°C) mean.

<sup>1</sup> Preferred specification is ASTM C 1290.

### Availability

Standard roll width: 48" (1.2m)

Installed R (RSI) values: When installed in accordance with recommended installation procedures, SOFTR® Duct Wrap FRK will provide installed R (RSI) values as follows:

Nominal Thickness		Out of Package R (RSI) Value <sup>1</sup>		Installed Thickness <sup>2</sup>		Installed R (RSI) Value <sup>1,2</sup>	
in.	mm			in.	mm		
Type 75 – 0.75 pcf (12 kg/m <sup>3</sup> )							
1½	(38)	5.1	(0.90)	1⅝	(29)	4.2	(0.74)
2	(50)	6.8	(1.17)	1½	(38)	5.6	(0.98)
2.2	(56)	7.4	(1.30)	1⅝	(42)	6.0	(1.06)
3	(76)	10.0	(1.76)	2¼	(57)	8.3	(1.46)
Type 100 – 1.00 pcf (16 kg/m <sup>3</sup> )							
1½	(38)	5.6	(0.99)	1⅝	(29)	4.5	(0.79)
2	(51)	7.4	(1.30)	1½	(38)	6.0	(1.06)
Type 150 – 1.50 pcf (24 kg/m <sup>3</sup> )							
1½	(38)	6.0	(1.06)	1⅝	(29)	4.8	(0.85)
2	(51)	8.0	(1.41)	1½	(38)	6.4	(1.13)

1. hr·ft<sup>2</sup>·°F/Btu (m<sup>2</sup>·°C/W) at 75°F (24°C) mean temperature.

2. Assumes 25% compression of insulation.

### Physical Properties

Property	Test Method	Value		
Operating Temperature	ASTM C411	up to 250°F (121°C)		
Insulation Jacket Temperature Limit	ASTM C1136	up to 150°F (66°C)		
Jacket Puncture Resistance	ASTM C1136	25 units (0.7 joules)		
Water Vapor Permeance	ASTM E96	0.02 perms		
Water Vapor Sorption	ASTM C1104	<3% by weight at 120°F (49°C), 95% R.H.		
Fungi Resistance	ASTM C1338	Meets Requirements		
Thermal Conductivity				
Out-of-Package k-Value		Type 75	Type 100	Type 150
k Btu·in/hr·ft <sup>2</sup> ·°F		0.30	0.27	0.25
(λ at 24°C Mean, W/m·°C)	ASTM C518	(0.043)	(0.039)	(0.036)
Out-of-Package k-Value		Type 75	Type 100	Type 150
k Btu·in/hr·ft <sup>2</sup> ·°F		0.27	0.25	0.23
(λ at 24°C Mean, W/m·°C)		(0.039)	(0.036)	(0.033)
Surface Burning Characteristics <sup>3</sup>				
Flame Spread	ASTM E84	25		
Smoke Developed		50		

3. The surface burning characteristics of this product have been determined in accordance with ASTM E 84. 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 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 five rating.

**Owens Corning** delivers high-performance insulation solutions through a full line of fiberglass, foam and mineral wool products and systems. These products and system solutions help conserve energy, improve acoustics and ease installation and use. These qualities add up to preferred insulation products for residential and commercial construction and industrial applications.



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**OWENS CORNING INSULATING SYSTEMS, LLC**  
ONE OWENS CORNING PARKWAY  
TOLEDO, OHIO, USA 43659  
**1-800-GET-PINK®**  
[www.owenscorning.com](http://www.owenscorning.com)