



# SOFTR® Duct Wrap FRK



## Description

SOFTR® Duct Wrap is a blanket of glass fiber insulation factory-laminated to FRK vapor retarder facing. A 2" (50mm) 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.

## Features

- Condensation control.
- Enhanced comfort control.
- Easy to clean surface.
- Flexible and easy to install.

## Physical Properties

Property	Test Method	Value		
Operating Temperature	ASTM C 411	up to 250°F (121°C)		
Insulation Jacket Temperature Limit	ASTM C 1136	up to 150°F (66°C)		
Jacket Puncture Resistance	ASTM C 1136	25 units (0.7 joules)		
Water Vapor Permeance	ASTM E 96	0.02 perms		
Water Vapor Sorption	ASTM C 1104	<3% by weight at 120°F (49°C), 95% R.H.		
Fungi Resistance	ASTM C 1338	Meets requirements		
Thermal Conductivity Out-of-Package k-Value k Btu·in./hr·ft <sup>2</sup> ·°F (λ at 24°C Mean, W/m·°C)	ASTM C 518	Type 75 0.30 (0.043)	Type 100 0.27 (0.039)	Type 150 0.25 (0.036)
Installed (Compressed) k-Value k Btu·in./hr·ft <sup>2</sup> ·°F (λ at 24°C Mean, W/m·°C)		Type 75 0.27 (0.039)	Type 100 0.25 (0.036)	Type 150 0.23 (0.033)
Surface Burning Characteristics <sup>1</sup> Flame Spread Smoke Developed		ASTM E 84		25 50

1. The surface burning characteristics of these products 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 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.

## Applications

- SOFTR® Duct Wrap FRK is used for external insulation of commercial and residential heating, air conditioning and dual-temperature ducts operating at temperatures from 40°F (4°C) to 250°F (121°C). This insulation, when applied in accordance with installation instructions (Pub. 10021577), will provide the "installed R-value" as published for the product and printed on the facing, assuring specified in-place thermal performance and condensation control.

## Limitations

- SOFTR® Duct Wrap FRK is not recommended for use on duct systems subject to continuous service at temperatures in excess of 250°F (121°C). It should not be used in conditions where condensation might occur on the facing nor exposed to weathering or mechanical abuse without proper protection. It should not be used on the inside of ducts.

## Availability

Standard roll width: 48" (1.2m), 60" (1.5m)  
 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>2</sup>		Installed Thickness <sup>3</sup>		Installed R (RSI) Value <sup>2,3</sup>	
in.	mm			in.	mm		
Type 75 – 0.75 pcf (12 kg/m <sup>3</sup> )							
1½	(38)	5.1	(0.90)	1½	(38)	4.2	(0.74)
2.0	(50)	6.8	(1.17)	1½	(38)	5.6	(0.98)
2.2	(56)	7.4	(1.30)	1½	(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)	1½	(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)	1½	(29)	4.8	(0.85)
2	(51)	8.0	(1.41)	1½	(38)	6.4	(1.13)

2. hr·ft<sup>2</sup>·°F/Btu (m<sup>2</sup>·°C/W) at 75°F (24°C) mean temperature.  
 3. Assumes 25% compression of insulation.

## Material Requirements to Achieve Installed R-Value

Out-Of Package Thickness	Installed Thickness	Stretch-Out Dimensions	
		Round and Oval Ducts	Square and Rectangular Ducts
in.	in.	P+in.	P+in.
1½	1⅞	P+9½	P+8
2	1½	P+12	P+10
2 <sup>3</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	P+13	P+11
3	2¼	P+17	P+14½

P = measured duct perimeter

## Specification 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 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.

4. Preferred specification is ASTM C 1290.

## 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](http://www.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](http://ul.com/gg)
- Environmental Product Declaration (EPD) has been certified by UL Environment\*
- Material Health Certificate from Cradle to Cradle Products Innovation Institute



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Pub. No. 59241-M. Printed in U.S.A. December 2016.  
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