



# SOFTR® UNFACED FIBERGLAS™ DUCT WRAP

SOFTR® Unfaced Fiberglas™ Duct Wrap is a blanket of glass fiber insulation without a factory applied facing. This product is designed to meet existing performance standards such as NFPA 90A and 90B and other model building and energy codes.

## Features

- **Assured Thermal Performance** – When installed in accordance with instructions so that compression is controlled, SOFTR® Unfaced Fiberglas™ Duct Wrap provides specified thermal performance. See R-value table. Operating costs are controlled due to reduction of heat loss or gain through duct walls.
- **Enhanced Comfort Control** – SOFTR® Unfaced Fiberglas™ Duct Wrap helps heating and cooling systems to deliver conditioned air to occupied spaces at or near design temperatures. By conserving heating and cooling energy, HVAC systems may operate under reduced load.
- **Meets Model Energy and Mechanical Codes** – SOFTR® Unfaced Fiberglas™ Duct Wrap, when correctly installed, complies with model building and energy codes and standards including ASHRAE 90.1 and 90.2. Architects, contractors, code officials and owners are assured of compliance and “no problem” inspection. Application of insulation is the responsibility of the engineer and contractor.
- **Flexible and Easy to Install** – SOFTR® Unfaced Fiberglas™ Duct Wrap is easily cut and fit to flat, curved or irregular duct surfaces for a neat, thermally effective insulation blanket. It has excellent tensile strength for easy installation and handling. Because it’s easier to install than rigid boards, installation costs are lowered.
- **No Added Formaldehyde** – SOFTR® Unfaced Fiberglas™ Duct Wrap does not include the addition of red list materials like formaldehyde. It is especially appropriate for applications in residential homes, education, healthcare, and other institutions committed to indoor air quality.

## Standards, Codes Compliance

- ASTM C1290, Flexible Fibrous Glass Blanket Insulation Used to Externally Insulate HVAC Ducts, Type I
- ASTM C 553,<sup>1</sup> Mineral Fiber Thermal Insulation: Type I (Operating temperatures to 250°F (121°C) and thermal values to 150°F (66°C) mean

<sup>1</sup> Preferred specification is ASTM C1290.

NOTE TO SPECIFIERS – Federal Specification HH-I-558B (Amendment 3), Form B (covering the duct wrap), is obsolete. These are replaced by the above referenced ASTM specifications.

## Applications

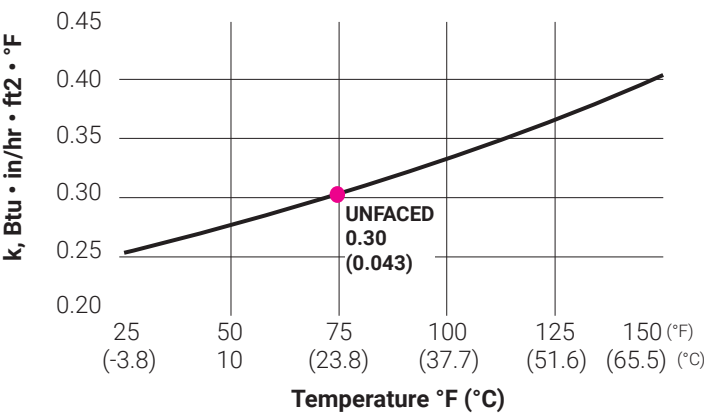
SOFTR® Unfaced Fiberglas™ Duct Wrap is used for external insulation of commercial and residential heating, air conditioning and dual-temperature ducts operating at temperatures from 40°F (4°C) to 250°F (121°C). This insulation, when applied in accordance with installation instructions, will provide the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

## Physical Properties

PROPERTY	TEST METHOD	VALUE
Operating Temperature	ASTM C411	Up to 250°F (121°C)
Water Vapor Sorption	ASTM C1104	<3% by weight at 120°F (49°C), 95% R.H.
Fungi Resistance	ASTM C1338	Meets requirements
Thermal Conductivity K at 75°F Mean, Btu • in/hr • ft² • °F (λ at 24°C Mean, W/m • °C)	ASTM C518	Type 75 0.30 (0.043)
Surface Burning Characteristics Flame Spread Smoke Developed	ASTM E84 <sup>2</sup>	25 50

<sup>2</sup> The surface burning characteristics of these products have been determined in accordance with ASTM E84, 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.

Thermal Conductivity



Apparent thermal conductivity curve determined in accordance with ASTM Practice C1045 with data obtained by ASTM Test Method C177. Values are nominal, subject to normal testing and manufacturing tolerances.

Material Requirements to Achieve Installed R-Value

NOMINAL THICKNESS		INSTALLED THICKNESS		STRETCH OUT DIMENSIONS, IN. (MM)					
IN.	MM	IN.	MM	ROUND & OVAL DUCTS		SQUARE DUCTS		RECTANGULAR DUCTS	
1.5	(38)	1.125	(29)	P + 9.5	(240)	P + 8	(205)	P + 7	(180)
3 <sup>3</sup>	(76)	2.25	(57)	P + 17	(430)	P + 14.5	(370)	P + 11.5	(290)

P = measured duct perimeter  
3 Double layer thickness

Condensation Control

To determine thickness to prevent condensation at various ambient temperature and humidity levels, based on installed thickness 75% of nominal (out-of-package) thickness, 55°F (13°C) air duct internal temperature:

1. Select maximum expected relative humidity (R.H.) on the lower scale.
2. Move up vertically until that line intersects the expected maximum ambient air temperature.
3. Select the thickness indicated by the intersection point.
4. Specified design thickness should be adequate to prevent exterior surface condensation.

Limitations

SOFTR® Unfaced Fiberglas™ Duct Wrap 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 exposed to weathering or mechanical abuse without proper protection. It should not be used on the inside of ducts.

Availability

NOMINAL THICKNESS		OUT-OF-POCKET R (RSI) VALUE	INSTALLED THICKNESS		INSTALLED R (RSI) VALUE
IN.	MM		IN.	MM	
2	(50)	6.7 (1.2)	1.90	(48)	5.5 (0.97)
2.2	(56)	7.3 (1.3)	2.10	(53)	6.0 (1.1)
3	(76)	10 (1.8)	2.90	(73)	8.4 (1.5)

Installation

Before applying SOFTR® Unfaced Fiberglas™ Duct Wrap, ducts shall be clean, dry and tightly sealed at all joints and seams. SOFTR® Unfaced Fiberglas™ Duct Wrap shall be cut to “stretch-out” dimensions overlap a minimum of 2” (51mm) and secure with a wire or banding system.

If ducts are rectangular or square, install so insulation is not excessively compressed at duct corners. Where rectangular ducts are 24” (600mm) in width or greater, duct wrap shall be additionally secured to the bottom of the duct with mechanical fasteners such as pins and speed clip washers, spaced on 18” (425mm) centers (maximum) to prevent sagging of insulation. It is neither necessary nor desirable to adhere duct wrap to duct surfaces.

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).

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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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