

SoftTouch™ Duct Wrap Insulation

PRODUCT DESCRIPTION

Basic Use: SoftTouch Duct Wrap Insulation is used to insulate rectangular and round heating, ventilating and air conditioning ductwork.

Benefits: SoftTouch Duct Wrap Insulation provides thermal efficiency that reduces unwanted heat loss or gain from equipment and ductwork. When properly installed in the correct thickness, this product virtually eliminates condensation problems on cold duct surfaces.

Composition and Materials: SoftTouch Duct Wrap is a blanket-type insulation composed of tan, uniformly textured, inorganic fibrous glass formed with a formaldehyde-free plant-based binding agent. It is available unfaced or with FSK, gray PSK or white PSK vapor retarder facing. On faced products, a stapling/taping tab is provided on one edge.

Limitations: The product should be kept clean and dry from the time of manufacture through job site installation and system operation.

SoftTouch Duct Wrap is suitable for use with most heating, ventilating and air conditioning ductwork operating at temperatures from 35°F to 250°F (1.7°C to 121°C) for faced SoftTouch Duct Wrap, and from 35°F to 450°F (1.7°C to 232°C) for unfaced SoftTouch Duct Wrap.

Sizes: Available sizes as shown in the table on other side. Contact CertainTeed for other sizes and minimum order quantities.

INSTALLATION

Sheet metal ducts must be clean, dry and sealed tightly prior to insulating with CertainTeed SoftTouch Duct Wrap.

To ensure installed thermal performance, CertainTeed SoftTouch Duct Wrap must be cut to “stretch-out” dimensions. This requires measurement of the duct perimeter, then cutting the duct wrap to the dimensions (perimeter + add-on) indicated in the stretch-out table on other side. A 2" piece of insulation is removed from the facing at the end of the piece of insulation to form an overlapping stapling and taping flap.

CertainTeed SoftTouch Duct Wrap is installed by wrapping the insulation around the perimeter of the duct with the facing out. Adjacent sections of duct wrap are tightly butted with the 2" taping flap overlapping. Seams must be stapled with outward-clinching staples on approximately 6" centers. Where a vapor retarder is required, all seams, joints, tears, punctures and/or other penetrations of the duct wrap must be sealed with a pressure sensitive vapor retarder tape that matches the facing, or a suitable mastic system.

Where rectangular ducts are 24" in width or greater, CertainTeed SoftTouch Duct Wrap must be additionally secured to the bottom of the duct with mechanical fasteners spaced 18" on center to prevent sagging.

For additional installation details, consult the National Commercial and Industrial Insulation Standards (current edition) published by the Midwest Insulation Contractors Association (MICA).

AVAILABILITY AND COST

Manufactured in U.S.A. Available in select Western U.S./Canada regions. For availability and cost contact your local distributor, or call CertainTeed Sales Support Group in Valley Forge, PA at 800-233-8990.

WARRANTY

Refer to CertainTeed's Limited One-Year Warranty for Fiber Glass Duct Wraps (30-29-047).

MAINTENANCE

An inspection and preventative maintenance program for the HVAC system is recommended to ensure optimum performance.

Product Name	CertainTeed SoftTouch™ Duct Wrap Insulation
Manufacturer	CertainTeed Corporation
Address	P.O. Box 860 Valley Forge, PA 19482-0105
Phone	610-341-7000 • 800-233-8990
Fax	610-341-7571
Website	www.certainteed.com/insulation/hvac-mechanical

TECHNICAL DATA

Applicable Standards

- Model Building Codes:
 - ICC
- Material Standards:
 - ASTM C1290
 - ASTM C553
 - Type I, Type 75 Duct Wrap
 - Type II, Type 100 & 150 Duct Wrap
 - Type III, Type 150 Duct Wrap
 - CAN/CGSB-51.11-92
 - ASTM C1136: FSK & white PSK, Type II, Gray PSK, Type IV
- Fire Safety Standards:
 - NFPA 90A, NFPA 90B

Fire Resistance

- Fire Hazard Classification:
 - UL 723, ASTM E84, CAN/ULC-S102
 - Max. Flame Spread Index: 25
 - Max. Smoke Developed Index: 50
- Non-Combustible: ASTM E136 / Meets test requirements

Physical/Chemical Properties

- Thermal Performance: See table on other side
- Operating Limits:
 - Temperature: ASTM C411
 - Faced: Max. 250°F / 121°C
 - Unfaced: Max. 450°F / 232°C
- Water Vapor Sorption: ASTM C1104 / < 5% by weight
- Water Vapor Transmission – Facing:
 - ASTM E96, Dessicant Method
 - FSK and white PSK: Max. 0.02 perms (1.15 x 10⁻⁹ g/Pa•s•m²)
 - Gray PSK: Max. 0.09 perms (5.17 x 10⁻⁹ g/Pa•s•m²)
- Corrosiveness:
 - ASTM C665 / Passes test requirements
- Fungi Resistance:
 - ASTM C1338 / Passes test requirements
- Odor Emission:
 - ASTM C1304 / Passes test requirements

Quality Assurance

CertainTeed's commitment to quality and environmental management has ensured the registration of the Athens, Chowchilla and Kansas City plants to ISO 9001:2000 and ISO 14001:2004 standards.

TECHNICAL SERVICES

Technical assistance can be obtained either from the local CertainTeed sales representative, or by calling CertainTeed Sales Support Group in Valley Forge, PA at 800-233-8990.

FILING SYSTEMS

- CertainTeed Pub. No. 30-36-081
- Sweet's Catalog Files, 230700
- Additional product information available upon request.

THERMAL PERFORMANCE										
Product		R-Value		Installed R-Value		K-Value		Installed K-Value		
Type	Thickness		h•ft ² •°F	m ² •°C	h•ft ² •°F	m ² •°C	Btu•in	W	Btu•in	W
	in.	mm	Btu	W	Btu	W	h•ft ² •°F	m ² •°C	h•ft ² •°F	m ² •°C
75 (0.75 lbs/cu ft)	1	25	3.8	0.67	3.0	0.53	0.26	0.038	0.25	0.036
	1½	38	5.2	0.92	4.2	0.74	0.29	0.042	0.27	0.039
	2	51	6.9	1.22	5.7	1.00	0.29	0.042	0.26	0.038
	2⅞	54	7.3	1.29	6.0	1.06	0.29	0.042	0.27	0.038
	2¼	57	7.8	1.37	6.5	1.14	0.29	0.042	0.26	0.037
	2½	64	8.6	1.51	7.1	1.25	0.29	0.042	0.26	0.037
100 (1.0 lbs/cu ft)	3	76	9.6	1.69	8.0	1.41	0.31	0.045	0.28	0.041
	4	102	13.5	2.38	11.0	1.94	0.30	0.043	0.27	0.039
	1	25	3.8	0.67	3.0	0.53	0.26	0.038	0.25	0.036
	1½	38	5.7	1.00	4.5	0.79	0.26	0.038	0.25	0.036
150 (1.5 lbs/cu ft)	2	51	7.6	1.34	6.1	1.07	0.26	0.038	0.25	0.035
	1	25	4.1	0.72	3.2	0.56	0.24	0.035	0.23	0.034
	1½	38	6.2	1.09	4.8	0.85	0.24	0.035	0.23	0.034
	2	51	8.3	1.46	6.4	1.13	0.24	0.035	0.23	0.034

Tested in accordance with ASTM C518 and/or ASTM C177 at 75°F (24°C) mean temperature. R means resistance to heat flow. The higher the R-Value, the greater the insulating power. The installed R-Value and K-Value based upon 25% compression of the product thickness during installation. To get the installed R-Value, it is essential that this insulation be installed properly. If you do it yourself, follow the installation instructions carefully.

CONDENSATION CONTROL

Temp. Deg. F

Relative Humidity, %

None Required

1½" Required

2" Required

3" Required

> 3" Required

This chart is based on indoor conditions so far as wind and other factors are concerned.

To determine thickness to prevent condensation, based on installed thickness at 75% of nominal (out-of-package) thickness and a duct internal air temperature of 55°F, refer to the condensation control chart.

To use: 1) select maximum relative humidity (%) on lower axis; 2) read up vertically until that line intersects the maximum ambient air temperature; 3) select the thickness indicated at the point of intersection.

INSTALLATION STRETCH-OUT DIMENSIONS										
Product Label Thickness		Average Installed Thickness		Stretch-Out Dimensions ¹						
				Round Duct		Square Duct		Rectangular Duct		
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
1.5	38	1.13	29	P+	9.5	241	8	203	7	178
2	51	1.50	38	P+	12	305	10	254	8	203
2.25	57	1.69	43	P+	13.5	343	11.5	292	9	229
2.125	54	1.59	40	P+	12.6	321	10.4	270	8.4	213
3	76	2.25	57	P+	17	432	14.5	368	11.5	292
4	106	3.00	76	P+	22.0	559	18.5	470	14.5	368

(1) The stretch-out dimension is equal to the duct perimeter (P) plus the add-on factor for the type of duct being installed.

AVAILABLE SIZES							
Product Type	Facing	Thickness		Length		Width	
		in.	mm	in.	m	in.	mm
75 (0.75 lbs/cu ft)	UNFACED	1	25	150	45.7	9 - 72	229 - 1829
		1½	38	150	45.7		
		2	51	75	22.9		
		2½	64	75	22.9		
		3	76	50	15.2		
	FSK/PSK	1½	38	100	30.5	48	1219
		2	51	75	22.9		
		2⅞	54	75	22.9		
		2¼	57	75	22.9		
		2½	64	75	22.9		
100 (1.0 lbs/cu ft)	Unfaced	1	25	150	45.7	9 - 72	229 - 1829
	FSK/PSK	1	25	100	30.5	48	1219
		1½	38	100	30.5		
		2	38	75	22.9		
150 (1.5 lbs/cu ft)	FSK/PSK	1½	38	75	22.9	48	1219
		2	51	50	15.2		



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