

# SoftTouch™ Duct Wrap Insulation

## 1. PRODUCT NAME

CertainTeed SoftTouch™ Duct Wrap Insulation

## 2. MANUFACTURER

CertainTeed Corporation  
P.O. Box 860  
Valley Forge, PA 19482-0105  
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800-233-8990  
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## 3. 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.

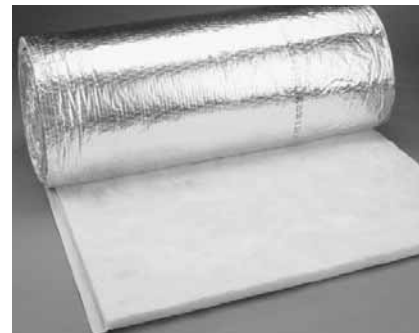
### Composition and Materials:

SoftTouch Duct Wrap is a blanket-type insulation composed of glass fibers bonded together with a thermosetting resin. 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 below. Contact CertainTeed for other sizes and minimum order quantities.



## 4. 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, NFPA 255, CAN/ULC-S102-M88)
    - Max. Flame Spread Index; 25
    - Max Smoke Developed Index; 50
- Non-Combustible: (ASTM E136)
  - Meets tests requirements
- Physical/Chemical Properties:**
  - Thermal Performance:
    - See table on back page
  - 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 ( $1.15 \times 10^{-9}$  g/Pa-s-m<sup>2</sup>)
    - Gray PSK: Max. 0.09 perms ( $5.17 \times 10^{-9}$  g/Pa-s-m<sup>2</sup>)
  - Corrosiveness: (ASTM C665)
    - Pass test requirements
  - Fungi Resistance: (ASTM C1338)
    - Pass test requirements

AVAILABLE SIZES							
PRODUCTS	FACING	THICKNESS		LENGTH		WIDTH	
Type		in.	mm	ft.	m	in.	mm
75	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		
	FSK/PSK*	3	76	50	15.2	48	1219
		1½	38	100	30.5		
		2	51	75	22.9		
		2⅛	54	75	22.9		
		2¼	57	75	22.9		
		2½	64	75	22.9		
		3	76	50	15.2		
		4	102	50	15.2		
100	Unfaced	1	25	150	45.7	9 – 72	229 – 1829
	FSK/PSK*	1	25	100	30.5		
		1½	38	100	30.5		
150	FSK/PSK*	2	51	75	22.9	48	1219
		1½	38	75	22.9		
		2	51	50	15.2		

\* PSK Faced products are made-to-order

- Odor Emission: (ASTM C1304)
  - Pass test requirements

**Quality Assurance:** CertainTeed's manufacturing plants, R&D center and corporate headquarters are registered to ISO 9001-2000 standards. The GREENGUARD Environmental Institute has certified SoftTouch Duct Wrap for low emissions of total particle, formaldehyde and other Volatile Organic Compounds (VOCs).

## 5. INSTALLATION

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

To ensure installed thermal performance, CertainTeed SoftTouch Duct Wrap shall 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 below. 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 shall 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 shall 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 shall 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).

## 6. AVAILABILITY AND COST

Manufactured and sold throughout the United States. For availability and cost contact your local distributor, or call CertainTeed Sales Support Group in

Valley Forge, PA at 800-233-8990.

## 7. WARRANTY

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

## 8. MAINTENANCE

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

## 9. 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.

## 10. FILING SYSTEMS

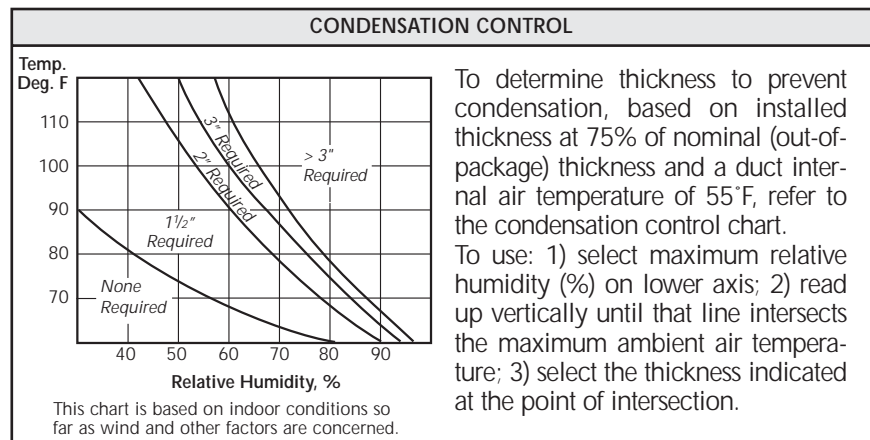
- CertainTeed Pub. No. 30-36-004
- Sweet's Catalog Files, 15080/CER
- Additional product information available upon request.

THERMAL PERFORMANCE										
Product			R-Value		Installed R-Value		K-Value		Installed K-Value	
Type	Thickness		$h \cdot ft^2 \cdot ^\circ F$	$m^2 \cdot ^\circ C$	$h \cdot ft^2 \cdot ^\circ F$	$m^2 \cdot ^\circ C$	$Btu \cdot in$	$W$	$Btu \cdot in$	$W$
	in	mm	Btu	W	Btu	W	$h \cdot ft^2 \cdot ^\circ F$	$m^2 \cdot ^\circ C$	$h \cdot ft^2 \cdot ^\circ F$	$m^2 \cdot ^\circ C$
75	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
	2½	54	7.3	1.29	6.0	1.06	0.29	0.042	0.27	0.038
	2¾	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
	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
100	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
	2	51	7.6	1.34	6.1	1.07	0.26	0.038	0.25	0.035
150	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 &/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.

INSTALLATION STRETCH-OUT DIMENSIONS										
Product Label Thickness		Average Installed Thickness			Stretch-Out Dimensions <sup>1</sup>					
in.	mm	in.	mm		Round Duct		Square Duct		Rectangular Duct	
					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	102	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.



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