

## CrimpWrap™ Crimped Pipe and Tank Wrap

### PRODUCT DESCRIPTION

**Basic Use:** CertainTeed CrimpWrap™ is used to insulate vessels, large diameter pipes and rectangular or round duct work with service temperatures from 35°F to 850°F (1.7°C to 454°C). It is used in commercial and industrial construction projects. The product helps control heat loss or gain, and provides hot surface personnel protection during system operation.



**Benefits:** The unique variably oriented fibers provide the thermal and compressible properties found in rigid fiberglass board products while remaining flexible enough to wrap vessels, and can be used as a cost-effective substitute for pre-formed pipe insulation on large diameter pipes (see table on the next page for minimum pipe diameters for each thickness). This product eliminates the potential for strip delamination common in traditional tank wrap during fabrication and installation.

**Composition and Materials:** This product is made from a continuous fiberglass blanket. It is a unique flexible insulation composed of variably oriented glass fibers firmly bonded together with a thermosetting resin. Products are available either foil-faced or with a white-faced (ASJ) vapor retarder facing.

**Limitations:** Installed insulation thickness should be sufficient to limit the facing temperatures to less than 140°F. For 850°F application temperatures, the maximum insulation thickness should not exceed 4". Faced insulation should not be installed in multiple layers. Insulation should be kept clean and dry during shipping, storage, installation and system operation.

**Sizes:** See table on next page for available sizes. Contact CertainTeed for availability and minimum order quantities.

### INSTALLATION

**Preparatory Work:** Determine the stretch-out length of the CrimpWrap required by measuring the outside perimeter of the pipe or tank to be insulated. Add an allowance of 6.28 times the insulation thickness (6.28t) to the circumference to obtain the stretch-out dimension. For pipes and tanks of known diameters, the stretch-out (SO) can be calculated by the following equation:  $SO = 3.14(d+2t)$

In the above equation, d equals pipe or tank diameter and t equals product thickness. If a staple flap is required, an additional 3" (76 mm) should also be added to the stretch-out dimension. For common pipe sizes, select the stretch-out length from the table.

To prepare the staple flap, cut off the stretch-out length from the insulation roll. At 3" from the end of this piece, cut the insulation parallel to the end and down to, but not through, the facing. Strip off the 3" wide piece of insulation to form the staple flap.

**Method:** To install, wrap the insulation around the surface(s) to be insulated to verify the length. The insulation should be butted and secured with staples and vapor barrier mastic or adhesive, or by applying staples and a pressure-sensitive vapor retarder tape that is compatible with the facing. Adjacent sections should be butted together and sealed with the pressure-sensitive tape. When service temperature is below ambient, special care must be given to seal all joints and facing penetrations. Use of bands or impalement pins for securement purposes is permitted. Consult the National Commercial and Industrial Insulation Standards, published by the Midwest Insulation Contractors Association (MICA) or Thermal Insulation Association of Canada (TIAC) Specification for additional details on installation and weatherproofing for outdoor applications.

**Precautions:** The application diameter of the insulation should not be less than the diameter indicated. Insulation should be kept clean and dry during shipping, storage, installation and system operation.

### AVAILABILITY AND COST

Distributed and sold throughout the United States and Canada. For availability and cost contact your local distributor, or call CertainTeed Sales Support Group at 800-233-8990.

### WARRANTY

Refer to CertainTeed's Limited Warranty for Commercial Insulation (30-25-034).

<b>Product Name</b>	CertainTeed CrimpWrap™ Crimped Pipe and Tank Wrap
<b>Manufacturer</b>	CertainTeed Corporation
<b>Address</b>	20 Moores Road Malvern, PA 19355
<b>Phone</b>	800-233-8990
<b>Website</b>	<a href="http://certainteed.com/technicalinsulation">certainteed.com/technicalinsulation</a>

### TECHNICAL DATA

#### Applicable Standards

- Material Standards:
  - ASTM C612 Type IA, Type II
  - ASTM C1393 Type IIIA, Category 2

#### Fire Resistance

- Fire Hazard Classification:
  - ASTM E84
    - Max. Flame Spread Index: 25
    - Max. Smoke Dev. Index: 50
- Limited Combustible:
  - NFPA 259
  - < 3,500 Btu/lb.

#### Physical/Chemical Properties

- Thermal Performance:
  - ASTM C518 or ASTM C177
  - See table on other side
- Operating Limits:
  - Temperature: ASTM C411
  - Max. 850°F (454°C)
- Corrosiveness (Copper, Aluminum, Steel): ASTM C665
  - Meets requirements
- Corrosiveness (Austenitic Stainless Steel): ASTM C795
  - Meets requirements
- Fungi Resistance: ASTM C1338
  - Meets requirements
- Odor Emission: ASTM C1304
  - Meets requirements
- Moisture Vapor Transmission (facing only):
  - ASTM E96, Method A
  - Max. 0.02 perms
- Compressive Resistance (Min. load required to produce a 10% reduction in thickness, lb/ft<sup>2</sup> (kPA)):
  - ASTM C165
  - 25 (1.2)
- Density: ASTM C167
  - 2.5 pcf (40 kg/m<sup>3</sup>)

#### Quality Assurance

CertainTeed's commitment to quality and the environment has ensured the certification of the Athens, Chowchilla and Kansas City plants to ISO 9001 and ISO 14001 Quality and Environmental Management System standards.

## MAINTENANCE

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

## TECHNICAL SERVICES

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

THICKNESS		MINIMUM NOMINAL PIPE DIAMETER (BLACK IRON PIPE)	
in.	mm	in.	mm
1	25	6	152
1½	38	8	203
2	51	10	254
2½	64	12	305
3	76	16	406
3½	89	18	457
4	102	20	508

AVAILABLE SIZES					
Thickness		Width		Length	
in.	mm	in.	mm	ft.	m
1	25	48	1219	39-4" to 52	12 to 15.85
1½	38	48	1219	25-9" to 30	7.85 to 9.14
2	51	48	1219	19-2" to 26	5.84 to 7.92
2½	64	48	1219	15-2" to 20	4.62 to 6.10
3	76	48	1219	13-2" to 20	4 to 6.10
3½	89	48	1219	13-2" to 15	4 to 4.57
4	102	48	1219	13" to 14	3.96 to 4.27

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

THERMAL PERFORMANCE			
Mean Temperature		Apparent Thermal Conductivity	
°F	°C	°F	°C
75	24	0.24	0.034
150	66	0.27	0.038
200	93	0.31	0.045
300	149	0.39	0.056
400	204	0.49	0.071
500	260	0.62	0.089

STRETCH-OUT LENGTHS																
Nominal Pipe Size	Pipe Outside Diameter		CrimpWrap Thickness													
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
in.	in.	mm	1	25	1½	38	2	51	2½	64	3	76	3½	89	4	102
6	6.63	168	27½	689	—	—	—	—	—	—	—	—	—	—	—	—
8	8.63	219	33¾	848	36½	928	—	—	—	—	—	—	—	—	—	—
10	10.75	273	40	1017	43¼	1097	46¾	1177	—	—	—	—	—	—	—	—
12	12.75	324	46½	1177	49½	1257	52½	1337	55¾	1416	—	—	—	—	—	—
14	14	356	50¼	1277	53¾	1357	56½	1436	59¾	1516	—	—	—	—	—	—
16	16	406	56½	1436	59¾	1516	62¾	1596	66	1676	69½	1756	—	—	—	—
18	18	457	62¾	1596	66	1676	69½	1756	72¼	1835	75¾	1915	78½	1995	—	—
20	20	508	69½	1756	72¼	1835	75¾	1915	78½	1995	81¾	2075	84¾	2155	88	2234
22	22	559	75¾	1915	78½	1995	81¾	2075	84¾	2155	88	2234	91½	2314	94¼	2394
24	24	610	81¾	2075	84¾	2155	88	2234	91½	2314	94¼	2394	97¾	2474	100½	2553
26	26	660	88	2234	91½	2314	94¼	2394	97¾	2474	100½	2553	103¾	2633	106¾	2713
28	28	711	94¼	2394	97¾	2474	100½	2553	103¾	2633	106¾	2713	110	2793	113½	2873
30	30	762	100½	2553	103¾	2633	106¾	2713	110	2973	113½	2873	116¼	2952	119¾	3032
32	32	813	106¾	2713	110	2793	113½	2873	116¼	2952	119¾	3032	122½	3112	125¾	3192
34	34	864	113½	2873	116¼	2952	119¾	3032	122½	3112	125¾	3192	128¾	3272	132	3351
36	36	914	119¾	3032	122½	3112	125¾	3192	128¾	3272	132	3351	135½	3431	138¼	3511

The lengths shown in this table do not have a 3" staple flap incorporated into the calculated dimensions. If a staple flap is desired, add 3" to the number shown.



### CertainTeed Corporation

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