

CrimpWrap™ Crimped Pipe and Tank Wrap

1. PRODUCT NAME

CertainTeed CrimpWrap™ Crimped Pipe and Tank Wrap

2. MANUFACTURER

CertainTeed Corporation
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3. PRODUCT DESCRIPTION

Basic Use: 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). Used in commercial and industrial construction projects. 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 fiber glass 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 at right 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 fiber glass 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.

Sizes: See table at right for available sizes. Contact CertainTeed for availability and minimum order quantities.

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.

4. TECHNICAL DATA

Applicable Standards:

- Material Standards:
 - ASTM C612: Type IA
 - ASTM C612: Type II, except for thermal conductivity at 75°F mean temperature
 - ASTM C1393: Type IIIA, Category 2

Fire Resistance:

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

Physical/Chemical Properties:

- Thermal Performance:
 - ASTM C518, ASTM C177
 - See table at right
- Operating Limits (Temperature):
 - ASTM C411
 - Max. 850°F (454°C)
- Corrosiveness:
 - ASTM C665
 - 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/ft² (kPa):
 - ASTM C165
 - 25 (1.2)



- Density
 - ASTM C167
 - 2.5 pcf (40 kg/m³)

THICKNESS		MINIMUM NOMINAL PIPE (BLACK IRON PIPE) DIAMETER	
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

THERMAL PERFORMANCE			
Mean Temperature		Apparent Thermal Conductivity	
		Btu•in h•ft²•°F	W m²•°C
°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

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

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.

5. 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: $SO = 3.14 \times (d + 2t)$

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

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 the 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.

6. AVAILABILITY AND COST

Distributed 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

Inasmuch as CertainTeed has no control over the installation design, installation workmanship, accessory materials or conditions of application, CertainTeed does not warrant the performance or results of any installation containing its products.

8. MAINTENANCE

An inspection and preventative maintenance program for the insulation and vapor retarder 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. 30-36-081
- Additional product information available upon request.

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	3.00	76	3½	89	4.00	102
6	6.63	168	27⅞	689	—	—	—	—	—	—	—	—	—	—	—	—
8	8.63	219	33⅞	848	36½	928	—	—	—	—	—	—	—	—	—	—
10	10.75	273	40	1017	43¼	1097	46⅞	1177	—	—	—	—	—	—	—	—
12	12.75	324	46⅞	1177	49½	1257	52⅞	1337	55¾	1416	—	—	—	—	—	—
14	14	356	50¼	1277	53⅞	1357	56½	1436	59¾	1516	—	—	—	—	—	—
16	16	406	56½	1436	59¾	1516	62⅞	1596	66	1676	69⅞	1756	—	—	—	—
18	18	457	62⅞	1596	66	1676	69⅞	1756	72¼	1835	75⅞	1915	78½	1995	—	—
20	20	508	69⅞	1756	72¼	1835	75⅞	1915	78½	1995	81⅞	2075	84⅞	2155	88	2234
22	22	559	75⅞	1915	78½	1995	81⅞	2075	84⅞	2155	88	2234	91⅞	2314	94¼	2394
24	24	610	81⅞	2075	84⅞	2155	88	2234	91⅞	2314	94¼	2394	97⅞	2474	100½	2553
26	26	660	88	2234	91⅞	2314	94¼	2394	97⅞	2474	100½	2553	103⅞	2633	106⅞	2713
28	28	711	94¼	2394	97⅞	2474	100½	2553	103⅞	2633	106⅞	2713	110	2793	113⅞	2873
30	30	762	100½	2553	103⅞	2633	106⅞	2713	110	2973	113⅞	2873	116¼	2952	119⅞	3032
32	32	813	106⅞	2713	110	2793	113⅞	2873	116¼	2952	119⅞	3032	122½	3112	125⅞	3192
34	34	864	113⅞	2873	116¼	2952	119⅞	3032	122½	3112	125⅞	3192	128¾	3272	132	3351
36	36	914	119⅞	3032	122½	3112	125⅞	3192	128⅞	3272	132	3351	135⅞	3431	138¾	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.																

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