

PITWRAP[®] CF JACKETING

Product Datasheet

FOAMGLAS[®]

Pittsburgh Corning

1. Description and Area of Application

PITWRAP[®] CF jacketing is a cellulose free fiberglass reinforced vapor retarder insulation jacketing, used for protecting above ground indoor FOAMGLAS[®] insulation systems on chilled water and other moderate temperature service pipelines.

PITWRAP[®] CF jacketing consists of a 28 µm (1.1 mil) thick white polypropylene film reinforced with a fiberglass scrim and laminated to a 12 µm (0.5 mil) thick aluminized polyester film (bottom) to assure high level of resistance and protection (puncture and tear resistance).

2. Field Application

Always read and understand information contained within product datasheets and safety datasheets before attempting to use this product. If you have questions regarding fitness of use of this product for a particular application, consult Pittsburgh Corning.

Substrate Preparation

All surfaces should be dry and free of dust, loose scale, oil, grease and frost.

Insulation should be secured to the pipe with fiberglass reinforced strapping tape, 2 pieces per section overlapped by at least 50%.

Cellular Glass Application Guidelines

Jacketing may be shop or field-applied. See supplemental application instructions at the end of this document.

Any change in insulation thickness, such as screwed ell covers, pipe step downs, etc., should be field tapered to make a smooth transition. These transitions may be coated with a mastic coating.

Clean up and Disposal

Dispose of excess jacketing, release film and packaging in accordance with local, state and federal regulations.

3. Type of Delivery and Storage

- Rolls: 59.7 cm x 183 m (23.4 in. x 600 ft), Weight approx. 8.2 kg (18 lb) or 91.4 cm x 60.9 m (36 in. x 600 ft), Weight approx. 10.9 kg (24 lb).
- See Pittsburgh Corning Product Data Sheets FI-290 and FI-291 for information on PITWRAP[®] CF Tape and Buttstrips
- Stored on end, under cover and protected from mechanical damage.



- Store away from ignition sources.
- Consult Safety Datasheet for additional storage and handling information.

4. Coverage

Standard application of jacketing to FOAMGLAS® insulation:

The required amount of jacketing for a section of insulated pipe can be calculated as follows:

- Required Jacketing Area (A)

Equation 1, SI, metric Units $A = [\pi \times (d + 2 t) + 50] \div 1000] \times l$

Equation 2, Imperial Units $A = [\pi \times (d + 2 t) + 2] \div 12] \times l$

Where d = actual pipe diameter in mm or inches, t = insulation thickness in mm or inches, l = pipe length in meters or feet.

Figures DO NOT include losses or butt strips.

5. Typical Properties

PROPERTY ^A	METHOD	SI	ENGLISH
COLOR			White (side 1) Aluminum (side 2)
THICKNESS, TOTAL	ASTM D1777	0.18 mm	7 mil
WEIGHT (NOMINAL)		~ 61.1 g / m ²	~ 1.3 lb / 100 ft ²
APPLICATION TEMPERATURE, MINIMUM		10 °C	50 °F
SERVICE TEMPERATURE ^B			
MAXIMUM		104 °C	220 °F
MINIMUM		-40 °C	-40 °F
AGING	Accelerated	No corrosion or delamination at 30 days @ 95% RH, 49 °C (120 °F)	
WATER IMMERSION		No delamination at 24 hours, 23 °C (73°F)	
MOLD RESISTANCE	ASTM C1338	No Growth	
LIGHT REFLECTIVITY	ASTM C523	85% (white side)	
PUNCTURE RESISTANCE	ASTM C1136	≥ 91 cm · kg	≥ 79 in. · lb
BURST STRENGTH	ASTM D774	≥ 7.0 kg / cm	≥ 100 psi
REACTION TO FIRE	ASTM E84 UL 723 CAN / ULC-S102	Flame Spread Index: 25 Smoke Development Index: 50	
TENSILE STRENGTH ^C	ASTM C1136	≥ 5.25 kN / m (MD) ≥ 5.25 kN / m (CD)	≥ 30 lb / in. (MD) ≥ 30 lb / in. (CD)
PERMEANCE	ASTM E96 (Wet Cup)	4.0 ng / Pa·s·m ²	0.07 perm

^A Properties are subject to change. Consult Pittsburgh Corning.

^B Service temperature limits are derived from laboratory evaluation of the product. Variations in substrates, loading conditions, or other external factors may further limit service temperature. Always consult Pittsburgh Corning FOAMGLAS® Insulation System Specification for suitability for use recommendations for a specific application.

^C MD = Machine Direction, CD = Cross Direction

6. Limitations

- DO NOT use below ground.
- DO NOT use outdoors without protective cladding or in areas where it can be exposed to UV radiation.

DO NOT use where jacketing will be exposed to hydrocarbons.

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7. Supplemental Instructions

Always wear Personal Protective Equipment (PPE) necessary for safe application of hot adhesives

Spray Application for Pre-applied Jacketing

STEP 1	STEP 2
<p>Load gun with hot melt pellets, and set to proper application temperature. Best results are achieved when adhesive is spray applied at a temperature of approximately 191°C (375°F).</p>	<p>Cut the jacketing sections to desired length to fit the O.D. of the pipe insulation and allow for a 50 mm (2 in.) overlap.</p>
	
STEP 3	STEP 4
<p>Begin adhesive application by spraying adhesive along both longitudinal edges of a pipe shell half-section (PSH). Best results are achieved with a 50 mm (2 in.) wide band of adhesive.</p>	<p>Immediately press one edge the pipe shell half-section (PSH) to the jacketing.</p>
	

STEP 5

Roll the pipe shell half-section (PSH) so that both mating surfaces are in contact with the jacketing.



STEP 6

Spray adhesive along both longitudinal edges of the second pipe shell half-section (PSH).



STEP 7

Carefully align the two pipe shell half-section (PSH).



STEP 8

Roll the pipe shell half-sections (PSH) so that both mating surfaces are in contact with the jacketing as shown below. Joint tape may be pre-applied or field applied.



Field Application of PITTWRAP® CF Jacketing

STEP 1	STEP 2
<p>Cut the jacketing sections to desired length to fit the O.D. of the pipe insulation and allow for a 50 mm (2 in.) overlap.</p>	<p>Turn the jacketing over so that the aluminum side is facing up and apply a strip of PITTWRAP® CF tape to both ends of the jacketing section. Position the tape about 3 to 6 mm ($\frac{1}{8}$ to $\frac{1}{4}$ in.) back from the edge of the jacketing section.</p>
	
<p>STEP 3</p> <p>Strike a horizontal line along the FOAMGLAS® pipe insulation convenient for starting jacketing positioning and to insure a uniform lap line.</p>	<p>STEP 4</p> <p>Remove the release paper from the tape at one end of the jacketing section.</p>
	

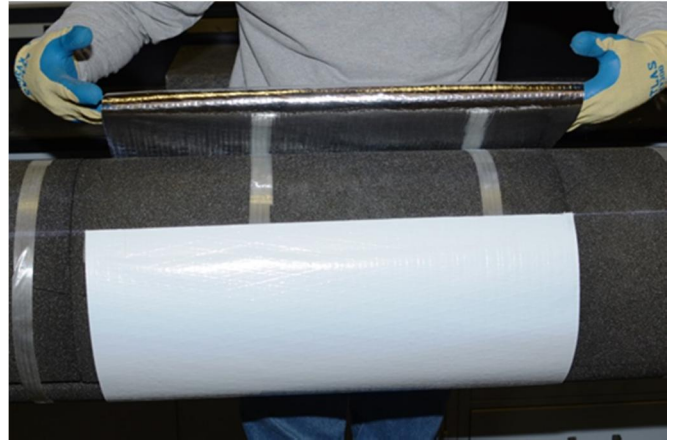
STEP 5

Starting on the chalk line, press the edge of the CF jacketing with the exposed tape onto the FOAMGLAS® pipe insulation.



STEP 6

Wrap the jacketing around the pipe insulation keeping tension on the jacketing to ensure that the jacketing is tightly wrapped around the insulation.



STEP 7

Peel the release paper from the overlap tape.



STEP 8

Press the lap into place smoothing wrinkles from the jacketing. The lap may be carefully peeled and repositioned during the process if needed. Once the lap has been sealed and is in place for a time it cannot be removed without damage to the jacketing.



STEP 9

Remove the release paper from the tape at one end of the another section of CF jacketing and, starting on the chalk line, align this piece of jacketing along the line butting it against the previously installed jacketing section. Press the edge of the jacketing section with the exposed tape onto the FOAMGLAS® pipe insulation. Each section of jacketing should be lined up in this manner.



STEP 10

Follow the same procedure in Steps 6 through 8 to complete the application of the jacketing section. Succeeding sections are placed to butt against the previous section of jacketing. All longitudinal joints should be started on the same line to facilitate placement of butt strips.



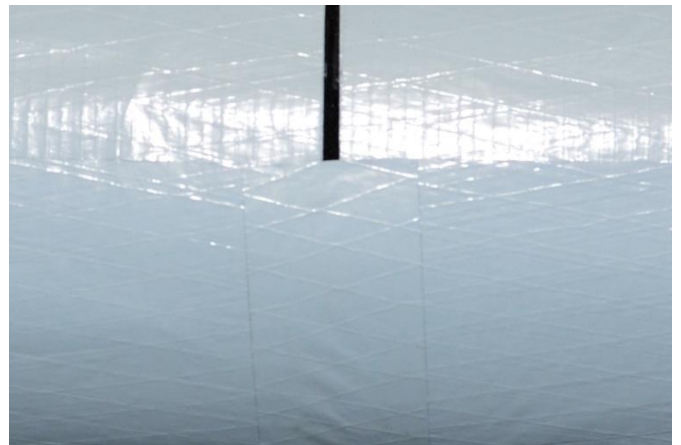
STEP 11

Cut PITTWRAP® CF Buttstrips to lengths at least 50 mm (2 in.) longer than the outer circumference of the jacketed pipe insulation. Cut a sufficient number of butt strips to cover all of the butt joints formed during the jacketing application.



STEP 12

Remove the release paper from the end of a butt strip piece from Step 11 and line the exposed adhesive end with the butt joint and longitudinal jacketing overlaps. Press the butt strip in place removing the release paper as the strip is applied.



STEP 13

Smooth the butt strip into place working down and under the pipe insulation, then up and over, finally overlapping the positioned end.



STEP 14

Continue application of butt strips following the procedures outlined in Steps 12 and 13 until all of the butt joints of the system are covered.

