PITTWRAP® B100 JACKETING

Product Datasheet

1. Description and Area of Application

PITTWRAP® B100 jacketing is a self-sealing, aluminum butyl laminate used for protecting above ground FOAMGLAS® insulation systems on above and below ambient service pipelines. Protective jacketing must be used over the PITTWRAP® B100 jacketing for UV protection. Manual pressure seals the jacketing without the use of a torch or heater.

PITTWRAP® B100 jacketing consists of a high tack butyl adhesive with aluminum film laminated to two polyester films (top and bottom) to assure high level of resistance and protection (puncture and tear resistance). The polyester layers also protect the aluminum face against corrosion.

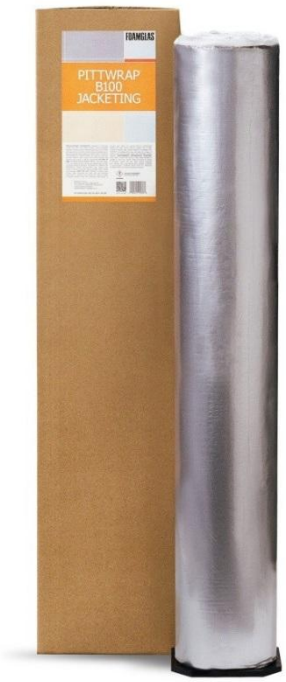
2. Field Application

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 an application, consult Pittsburgh Corning LLC.

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

PITTWRAP® B100 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 covered with jacketing cut to fit, or with spiral wrapped strips of jacketing.

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:
- 0.1 m x 15 m (3.9 in x 49.2 ft) or 1.5 m2 (16 ft2) Gross weight: 2.7 to 3.1 kg (5.9 to 6.9 lbs.)
- 0.6 m x 15 m (23.6 in x 49.2 ft) or 9.0 m2 (96 ft2) Gross weight: 16.4 to 18.2 kg (36.1 to 40.1 lbs.)
- 1.0 x 15 m (39.4 in x 49.2 ft) or 15.0 m2 (161 ft2) Gross weight: 27.1 to 30.5 kg (59.9 to 67.2 lbs.)
- Jacketing should not be stored where it may come in contact with hydrocarbon solvents such as petroleum spirit
- and diesel oil or other organic solvents.
- Jacketing should be handled and stored in a manner as not to damage the material and its packaging. For best
- results, rolls should be stored vertically; however, the rolls may be stored horizontally in their cartons provided the rolls are not exposed to damage by excessive weight of the stacked materials.
- Jacketing should be protected from inclement weather by storing indoors, where material will not exceed 100°F for extended periods. Jobsite storage in well ventilated containers, or covered on pallets is suitable for temporary periods.
- Store products in a heated building during cold weather or prior to cold weather application.
- Store away from sparks or flames.
- 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 (1 m wide roll) $A = [1.05 \times [\pi \times (d + 2\,t) + 50] \div 1000] \times l$
  Equation 2, Imperial Units (23.6 in. wide roll) $A = [1.08 \times [\pi \times (d + 2\,t) + 2] \div 12] \times l$
  Where d = actual pipe diameter in mm or inches, t = insulation thickness in mm or inches, and l = pipe length in m or ft.

Figures DO NOT include losses.

5. Typical Properties

PROPERTY [A]	METHOD	SI	ENGLISH
COLOR		Silver (Aluminum)	
THICKNESS, TOTAL ALUMINUM FOIL + BUTYL RUBBER ADHESIVE – RELEASE FILM		1.2 ± 0.05 mm	47.3 ± 2 mil
WEIGHT (NOMINAL), FOIL + BUTYL – RELEASE FILM		1.75 kg / m^2	0.36 lb / ft^2
APPLICATION TEMPERATURE,			
MAXIMUM		45 °C	113 °F
MINIMUM		5 °C	41 °F

SERVICE TEMPERATURE [B]			
MAXIMUM		140 °C	284 °F
MINIMUM		-50 °C	-58 °F
TENSILE STRENGTH	ASTM D1000	≥ 55 N/cm	≥ 31 lb/in.
ELONGATION	ASTM D1000	≥ 30%	
PUNCTURE RESISTANCE	ASTM E154	26 ± 10 kgf	58 ± 22 lbf
PERMEANCE	ASTM E96	≤ 0. 23 ng/Pa·s·m^2	≤ 0.004 perm
WATER VAPOR PERMEABILITY	ASTM E96 (Wet Cup)	0.00 ng / Pa·s·m	0.00 perm-in

[A] Properties are subject to change. Consult Pittsburgh Corning LLC.

[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 LLC FOAMGLAS® Insulation System Specification for suitability for use recommendations for a specific application.

6. Limitations

- DO NOT use below ground.
- DO NOT use in areas where jacketing will be exposed to solvents that can dissolve butyl rubber.
- DO NOT allow jacketing to remain exposed to sunlight and/or weather for more than 6 months.
- Not intended for indoor use

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Supplemental Instructions for Field-Applied Jacketing

STEP 1	STEP 2
Cut a section of jacketing long enough to fit around the insulated pipe and have a 50 mm (2 in.) overlap.	Peel 50 mm (2 in.) of release film from the jacketing to reveal the butyl adhesive.
	
STEP 3	**STEP 4**
Apply revealed adhesive to insulation in line with pipe axis. Best results are achieved when the start point results in the overlap terminating in a water shedding position.	Apply pressure with plastic spreader to ensure that the butyl adhesive fills the surface cells of the insulation, and achieves adhesion without trapping air.
	
STEP 5	**STEP 6**
Remove release film whilst applying jacketing around the circumference of the insulation.	Remove remaining release film and press jacketing around the circumference to achieve adhesion without trapping air.
	

STEP 7	STEP 8
Apply pressure with spreader to ensure that the jacketing overlap is well adhered and without air bubbles. This completes installation of one section of jacketing.	Start subsequent section of jacketing with a 50 mm (2 in.) overlap and a 50 mm (2 in.) offset from the starting point of the adjacent section. The red line represents the starting point of the subsequent section, which avoids the build-up of more than three layers at the overlap.
	
STEP 9	**STEP 10**
Continue applying jacketing sections as described above taking care to overlap and offset the starting point of each section from the previous one.	Remove release film whilst applying jacketing around the circumference of the insulation. Apply pressure with plastic spreader to ensure that the butyl adhesive fills the surface cells of the insulation, and achieves adhesion without trapping air.
	

STEP 11	STEP 12
Remove remaining release film and press jacketing around the circumference to achieve adhesion without trapping air.	Best results are achieved when overlaps are positioned one above, one below, one above configuration.
	

Supplemental Field Instructions for Pre-Applied Jacketing

STEP 1	STEP 2
If the insulation is supplied with pre-applied jacketing, then a circumferential butt strip will need to be applied to seal over the joint.	Apply butt strip in the same way as the jacketing, peeling the release film away while wrapping the strip around the insulation.
	
STEP 3	
Finish the butt strip using the spreader to ensure that the butt strip overlap is well adhered to itself and to the jacketing and without air bubbles.