



FOAMGLAS®

PITTWRAP® SS JACKETING

Description and Area of Application

PITTWRAP® SS (Self Seal) jacketing is a 70 mil-thick (1.78 mm), self-sealing, modified bituminous membrane for protecting underground FOAMGLAS® insulation systems with outer surface temperatures at or below 170°F (77°C). It is recommended for underground/direct-buried pipelines, including shallow-buried water service pipelines, above-ambient service pipelines, commercial chilled water and cold service applications. Manual pressure seals the jacketing without the use of a torch or heater in most circumstances. PITTWRAP® SS may be factory- or field-applied to the insulation.

PITTWRAP® SS jacketing consists of a polymer-modified bituminous compound reinforced with a glass fabric and a 1 mil (0.03 mm) aluminum top film and release-paper backing.

PITTWRAP® SS Jacketing meets the requirements of ASTM C1916 Type I Grade 3 Class B.*

* ASTM C1916: Standard Specification for Flexible Protective Jackets Made of Modified Asphalt/Butyl Rubber for Use over Thermal Insulation



Field Application

Always read and understand the information contained within product data sheets and safety data sheets before attempting to use this product. If you have questions regarding fitness of use of this product for an application, consult Owens Corning.

All underground insulation systems must be designed with proper engineering details to control expansion/contraction, anchoring, etc. A qualified engineer should be consulted for design.

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, two pieces per section, overlapped by at least 50%.

Cellular Glass Application Guidelines

PITTWRAP® SS jacketing may be shop- or field-applied. See supplemental application instructions at the end of this document.

Jacketing is wrapped around the circumference of the outermost layer of FOAMGLAS® insulation, butting edge to edge with butt strips applied over the end joints.

When temperature is below 50°F (10°C), or if jacketing surface is dusty, apply a thin coat of PITTWRAP® SS Primer by brush to the bituminous surface in the overlap area. If temperature is below 50°F (10°C) and surfaces are clean, the overlap may be warmed with a heater or torch, taking care not to burn through the jacket.

Fittings or Changes in Thickness

With any jacketing or coating, 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 should be treated as a fitting, using PITTCOTE® 300E coating and PC® Fabric 79 polyester fabric or PC® 150 mesh.

Fittings may be covered with jacketing cut in shapes to fit, or with PITTCOTE® 300E coating and fabrics referenced above. Coating should be extended over the aluminum surface of the jacketing by 4 in. (100 mm). Apply coating and fabric over the fitting.

Cleanup and Disposal

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

Type of Delivery and Storage

Supplied as a "kit" — one roll and one butt strip per kit. Butt strips (4/pkg.) may also be purchased separately.

Rolls:

- 23.5 in. x 50 ft (60 cm x 15.24 m)
- Gross weight: approx. 43 lb (19.5 kg)

Butt strip:

- 4 in. x 50 ft (10.2 cm x 15.24 m)
- Gross weight: approx. 13 lb (5.9 kg)

Also available by special order:

- Rolls: 23.5 in. x 100 ft (60 cm x 30.48 m)
- Butt strip: 4 in. x 100 ft (10.2 cm x 30.48 m)
- DO NOT store where it may come in contact with hydrocarbon solvents, such as petroleum spirit, diesel oil, or other organic solvents.
- Store on-end, under cover, and protected from mechanical damage.
- Store in a well-ventilated room and at a maximum temperature of 100°F (38°C).
- Store in a heated area for cold weather application.
- Consult Safety Data Sheet for additional storage and handling information.

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, Imperial Units

$$A = [1.08 \times [\pi \times (d + 2t) + 2] \div 12] \times l$$

Equation 2, SI, metric Units

$$A = [1.05 \times [\pi \times (d + 2t) + 50] \div 1000] \times l$$

Where d = actual pipe diameter in inches or mm, t = insulation thickness in inches or mm, and l = pipe length in ft or m.

* Figures DO NOT include losses.

Limitations

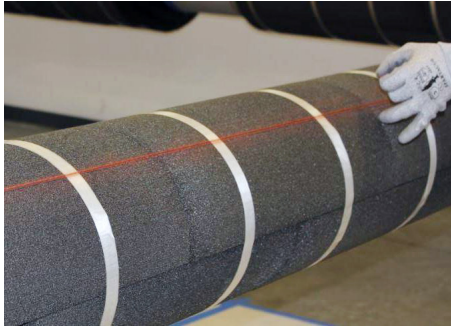
- DO NOT use over combustible insulations or install where open flames are not permitted.
- DO NOT use above ground without a metal jacket.
- DO NOT use where jacketing will be exposed to solvents that will dissolve asphalt.
- Not intended for indoor use.
- ALWAYS observe practical precautions when backfilling so not to puncture jacket.

Typical Properties

PROPERTY	TEST METHOD	SI UNITS	IMPERIAL UNITS
Color			Rose
Thickness Total, Foil + Bitumen – Release Film		1.78 mm	70 mil
Weight (Nominal), Foil + Bitumen – Release Film		~2.35 kg/m ²	~0.48 lb/ft ²
Service Temperature ¹			
Maximum		77°C	170°F
Minimum		-32°C	-25°F
Chemical Resistance			
Water			Good
Alkali			Good
Acid			Good
Petroleum Solvent			Poor
Reaction to Fire			Combustible
Permeance	ASTM E96 Procedure A	0.08 ng/Pa-s-m ²	0.0014 perms
Tensile Strength	ASTM D882	156 N/cm	90 lbf/in.
Elongation % min.	ASTM D882		5
Puncture Resistance	ASTM E154	886 N	199 lbf
Lap Adhesion	ASTM D882	79.0 N/cm	45 lbf/in.

¹ Service temperature is the approved exposure temperature at the jacket derived from laboratory evaluations. Variations in substrates, loading conditions, or other external factors may further limit service temperature. Always consult FOAMGLAS® Insulation System Specification for suitability for use recommendations for a specific application.

Supplemental Instructions for Field-Applied Jacketing



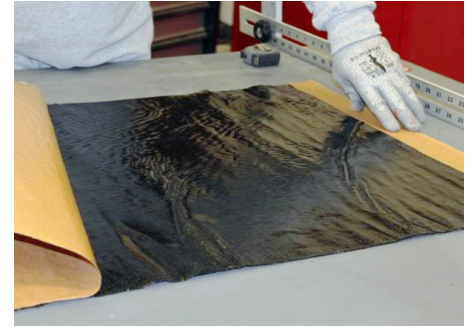
Step 1

After FOAMGLAS® insulation is installed, strike a horizontal line along the insulation convenient for starting jacket positioning and to ensure a uniform lap line.



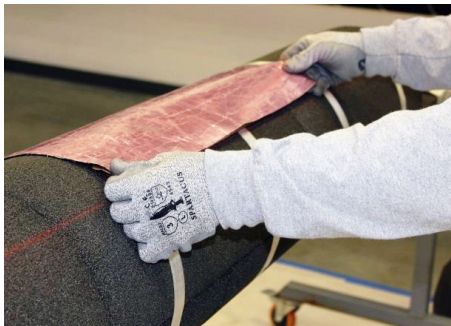
Step 2

Cut a length of jacketing to provide at least a 2 in. (50 mm) overlap at the longitudinal seam.



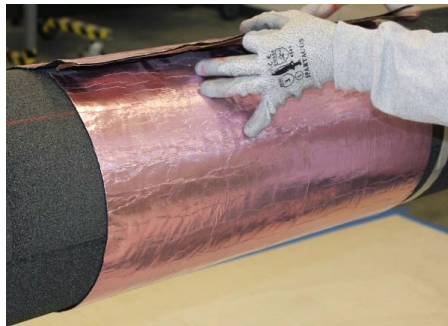
Step 3

Slit the release film at this overlap, taking care not to slit jacket. Remove release film except at the overlap. Dirt and dust must be kept off jacketing.



Step 4

Starting on the chalk line, press the surface of the jacketing halfway around the FOAMGLAS® insulation.



Step 5

Smooth the remaining jacket into place, working around the pipe cover. Avoid entrapment of air bubbles. Once the jacketing is completely around the insulation, lift the overlap and pass the opposite end beneath the overlap.



Step 6

Remove the remaining release paper on the overlap and press tightly to seal the longitudinal joint.



Step 7

Cut another length of jacketing and slit the release film as shown in steps one and two. Align this piece of jacketing along the chalk line, butting it against the previously installed jacketing section.



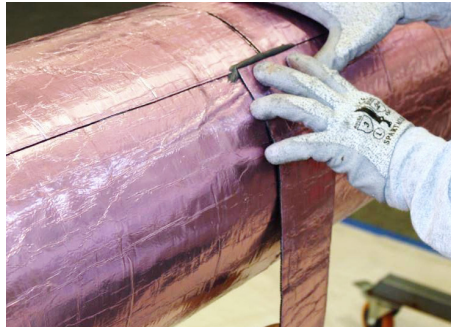
Step 8

Succeeding sections are applied in the same manner outlined. Succeeding sections are placed to butt against the previous section of jacket. All longitudinal joints should be started on the same line to facilitate placement of butt strips.



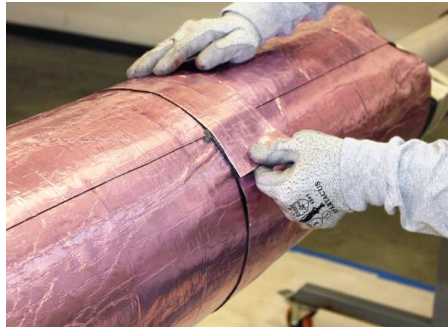
Step 9

Apply a bead of PITTSEAL® 444Ns sealant (FI-164s) along the edge of the longitudinal joint the width of the butt strip.



Step 10

Cut a length of butt strip at least 2.5 in. (64 mm) longer than the outer circumference of the jacketed pipe cover. Remove the release paper from the end of the butt strip, and embed the end in the sealant.



Step 11

Smooth the butt strip into place, working down and under the cover, then up and over, and finally overlapping the embedded end.



Step 12

After application, inspect all joints, smooth, and repress any loose areas. Use primer, or heat the same as when applying the jacket, if required.

For additional information on FOAMGLAS® Insulation Systems, please contact Owens Corning or visit us at www.foamglas.com.

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