



# FOAMGLAS®

# PITTWRAP® HS JACKETING

## Description and Area of Application

PITTWRAP® HS (Heat Seal) jacketing is a heat-sealable, multi-ply laminate for protecting underground FOAMGLAS® insulation systems for outer surface temperatures at or below 190°F (88°C).

PITTWRAP® HS jacketing consists of three layers of a polymer-modified, bituminous compound separated by glass fabric reinforcement and aluminum foil. An outer layer of polyester film is laminated to the bituminous compound. Product is supplied with a release paper to aid efficient application. PITTWRAP® HS Jacketing meets the requirements of ASTM C1916 Type II Grade 1 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.

### Recommended Application Equipment:

- LPG Torch, regulator: Goss Kit KP118 with BP-5TE tip and EX128 extension
- LPG Tank: LP-20
- LPG Hose: Goss HEF-25
- Gloves
- Pointed trowel
- Shears

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

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

### 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.

Fittings may be covered with jacketing cut in shapes to fit, or with commercially available asphalt mastic, such as Karnak 19 Ultra Rubberized Wet/Dry Flashing Cement and PC® Fabric 79 or PC® 150 mesh.

Stop the last full section of jacketing 4 in. (10 cm) short of the change in thickness or beginning of curvature. The polyethylene film on the PITTWRAP® HS jacketing must be flashed off a minimum of 2 in. (5 cm). Apply a tack coat of asphalt mastic over the bituminous surface and embed PC® Fabric 79, carefully lapping jacketing a minimum of 2 in. (5 cm). After one hour, apply a second coat and a second layer of fabric. If the fabric is still visible when the coating is dry, apply a third and final top coat.

If backfilling is planned less than 24 hours from the time coating is applied, roofing felt shall be placed over the coating to ensure that it is not compromised during backfill.

### 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.

- Rolls: 23.4 in. x 50 ft (0.594 m x 15.24 m) or 97.5 ft² (9 m²)
- Butt strips: 4 in. x 50 ft (0.102 m x 15.24 m)
- Gross weight: 89 lb (40.4 kg)

Also available by special order:

- Rolls: 48 in. x 25 ft (1.22 m x 7.62 m) or 100 ft² (9.3 m²)
- Store out of direct sunlight.
- Store in temperature-controlled area prior to use to facilitate 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

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

Equation 2, SI, metric Units

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

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

\* Figures DO NOT include losses.

## Limitations

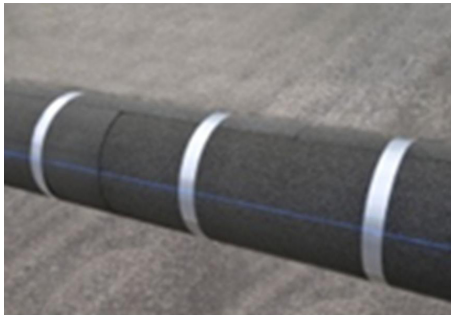
- DO NOT use over combustible insulations or install where open flames are not permitted.
- DO NOT use above ground without a metal jacket.
- DO NOT use where jacketing will be exposed to solvents that will dissolve asphalt.
- ALWAYS observe practical precautions when backfilling so not to puncture jacket.
- This material is designed for application by trained professional using proper equipment, and is not intended for sale to the general public.
- DO NOT use PITTCOTE® 300e with PITTWRAP® HS jacketing.

## Typical Properties

PROPERTY	TEST METHOD	PDS DECLARATION SI UNITS	PDS DECLARATION IMPERIAL UNITS
Color		Black	
Weight (Nominal), Foil + Bitumen/Foil Composite – Release Film		3.3 ± 0.1 kg/m <sup>2</sup>	0.675 ± 0.015 lb/ft <sup>2</sup>
Application Temperature Minimum		-7°C	20°F
Service Temperature <sup>1</sup> Maximum Minimum		88°C -7°C	190°F 20°F
Chemical Resistance Water Alkali Acid Petroleum Solvent			Good Good Good Poor
Reaction to Fire		Combustible	
Total Thickness		3 mm	125 mil
Permeance	ASTM E96 Procedure A	0.32 ng/Pa-s-m <sup>2</sup>	0.0056 perms
Tensile Strength	ASTM D882	156 N/cm	90 lbf/in.
Elongation % min.	ASTM D882		5
Puncture Resistance	ASTM E154	445 N	100 lbf
Lap Adhesion	ASTM D882	70 N/cm	40 lbf/in.

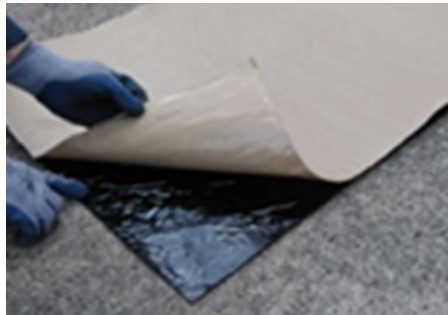
<sup>1</sup> Service temperature limits are derived from laboratory evaluation of the product under conditions that simulate real world applications. Variations in substrates, loading conditions, or other external factors not explicitly covered by our guide specifications may further limit service temperature. Always follow appropriate the Owens Corning guide specifications, product data sheets and application instructions for suitability for use recommendations for specific applications.

## Supplemental Instructions for Field-Applied Jacketing



### Step 1

After FOAMGLAS® insulation is installed, strike a chalk line at the three or nine o'clock position.



### Step 2

Cut jacketing to sufficient length for a ~ 2 in. (50 mm) overlap. Remove release paper from jacketing prior to heating.



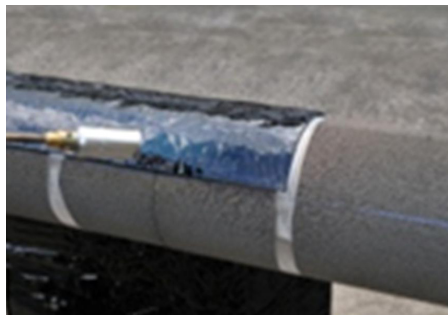
### Step 3

Heat half of the underside of the jacketing, including the leading edge, with the recommended torch.



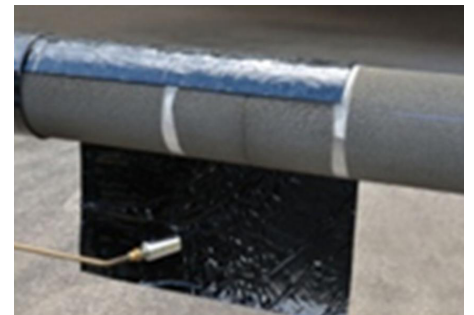
### Step 4

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



### Step 5

Burn off the polyester top film at the lap seal for a distance of ~ 3 in. (8 cm) back from the edge of the jacketing.



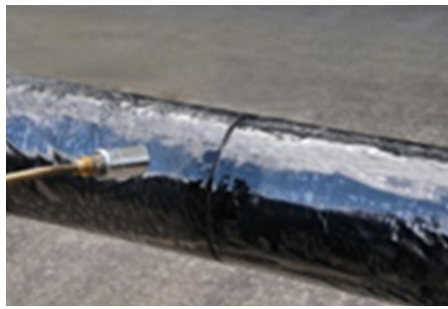
### Step 6

Heat the remaining half of the underside of the jacketing. Pull the jacketing around the insulation and make a ~ 2 in. (50 mm) lap seal. Repeat steps 1 through 6 for application of subsequent jacketing sections.



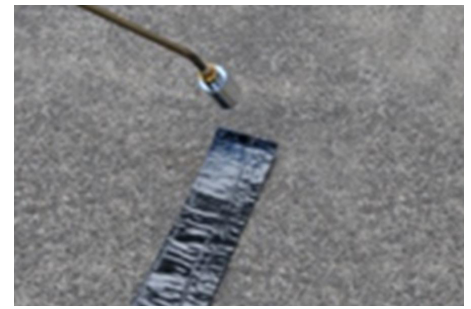
#### Step 7

Cut a jacketing butt strip 2.5 in. (64 mm) longer than the circumference of the jacketed insulation. Remove the release paper from the butt strip.



#### Step 8

Burn off the polyester film a distance of ~ 2 in. (5 cm) on both sides of a jacketing joint.



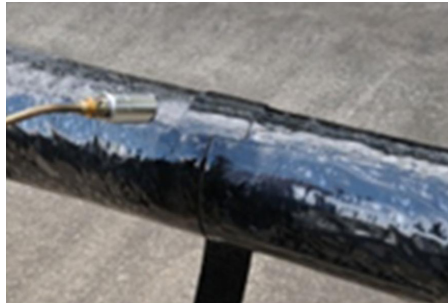
#### Step 9

Heat the leading edge and half of the butt strip.



#### Step 10

Starting at the edge of the jacketing lap seal, keeping it centered over the joint, apply the butt strip halfway around the jacketed insulation.



#### Step 11

Burn off the polyester film a distance of ~ 2 in. (5 cm) back from the edge of the butt lap seal.



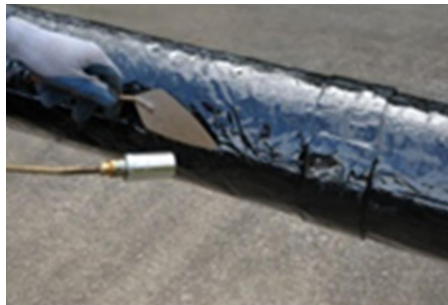
#### Step 12

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



#### Step 13

Seal the jacketing lap edges and around the butt strip edges using a torch until the bitumen flows and seals together, creating a monolithic membrane.



#### Step 14

Visually inspect the seal to ensure that molten asphalt has flowed into, and collected in, the lap. Further assurance of a positive seal can be made by pressing the lap in place with a pointed trowel.

#### NOTE:

The lap is closed with opening facing upward to allow softened bitumen to flow into the open seam. This provides a positive seal. This technique is the opposite of conventional jacketing applications.

For additional information on FOAMGLAS® Insulation Systems, please contact Owens Corning or visit us at [www.foamglas.com](http://www.foamglas.com).

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