

# PITTWRAP® IW50 JACKETING

## Product Datasheet

**FOAMGLAS®**

Pittsburgh Corning

## 1. Description and Area of Application

PITTWRAP® IW50 jacketing is a 1.27 mm (50 mil) thick self-sealing, modified bituminous membrane for protecting above ground FOAMGLAS® insulation systems under a metal or UV resistant jacket finish. Ideal for use where insulation has been roller coated with asphalt prior to jacketing. Metal or UV resistant jacketing must be used over the PITTWRAP® IW50 jacketing for UV protection. Manual pressure seals the jacketing without the use of a torch or heater. PITTWRAP® IW50 jacketing may be factory or field applied to the insulation.

PITTWRAP® IW50 jacketing consists of a polymer modified bituminous compound reinforced with a non-woven glass fabric, a 0.03 mm (1 mil) high polyester top film and release film backing.

## 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

Cut a length of jacketing to provide at least a 50 mm (2 in.) overlap at the longitudinal seam. Slit the release film at this overlap, taking care not to slit jacket. Strike a horizontal line along the insulation convenient for starting jacket positioning and to insure a uniform lap line. Remove release film except at the overlap. Dirt and dust must be kept off jacketing.

Place the end of the jacketing containing the release film in alignment with the struck line. The first piece of jacketing should be straight. 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. Remove the remaining release film on the overlap and press tightly to seal the longitudinal joint.

Any gaps or folds should be removed and resealed immediately. An ordinary wallpaper seam roller has been found to be particularly useful for



applying pressure to the overlap areas.

When temperature is below 10 °C (50 °F), or if jacketing surfaces is dusty, apply a thin coat of PITTWRAP® IW50 Primer (FI-155) by brush to the bituminous surface in the overlap area. If temperature is below 10 °C (50 °F) and surfaces are clean, the overlap may be warmed with a heater or torch, taking care not to burn through the jacket.

The second and succeeding sections are applied in the same matter. Succeeding sections are placed to overlap the previous section of jacket a minimum of 50 mm (2 in). All longitudinal joints should be started on the same line to facilitate placement of succeeding sections.

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

#### 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® 300 coating (FI-120) or PITTCOTE® 300E coating (FI-120e) and PC® Fabric 79 (FI-159) polyester fabric or PC® 150 mesh (FI-332).

Fittings may be covered with jacketing cut in shapes to fit, or with coatings and fabrics referenced above. Coating should be extended over the over the aluminum surface of the jacketing by 100 mm (4 in.). Apply a 100 mm (4 in.) butt strip with bituminous surface exposed, keeping the longitudinal lap even with the last full section. Apply a butt strip over the joint between the last full section and the reversed butt strip, leaving 50 mm (2 in.) of exposed bituminous surface. Apply coating and fabric over the fitting, extending onto the final butt strip.

#### 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: 91.4 cm x 22.9 m (36 in. x 75 ft.), Gross weight approx. 34 kg (75 lb)
- DO NOT stored where it may come in contact with hydrocarbon solvents such as petroleum spirit and diesel oil or other organic solvents.
- Stored on end, under cover and protected from mechanical damage.
- Store in a well-ventilated room and at a maximum temperature of 38 °C (100 °F).
- Store in a heated area for cold weather application.
- 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  $A = [1.06 \times [\pi \times (d + 2 t) + 50] \div 1000] \times l$

Equation 2, Imperial Units  $A = [1.06 \times [\pi \times (d + 2 t) + 2] \div 12] \times l$

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

Figures DO NOT include losses.

## 5. Typical Properties

| PROPERTY <sup>A</sup>                              | METHOD             | SI                           | ENGLISH                     |
|--|--------------------|------------------------------|-----------------------------|
| COLOR  |                    |                              | Black                       |
| THICKNESS, TOTAL<br>FOIL + BITUMEN – RELEASE FILM  |                    | 1.27 mm                      | 50 mil                      |
| WEIGHT (NOMINAL), FOIL +<br>BITUMEN – RELEASE FILM |                    | ~ 1.6 kg / m <sup>2</sup>    | ~ 0.33 lb / ft <sup>2</sup> |
| APPLICATION TEMPERATURE,<br>MINIMUM                |                    | 10 °C                        | 50 °F                       |
| MINIMUM W/PRIMER                                   |                    | - 7 °C                       | 20 °F                       |
| SERVICE TEMPERATURE <sup>B</sup><br>MAXIMUM        |                    | 75 °C                        | 167 °F                      |
| MINIMUM  |                    | -20 °C                       | -4 °F                       |
| CHEMICAL RESISTANCE                                |                    |                              |                             |
| WATER  |                    |                              | Good                        |
| ALKALI   |                    |                              | Good                        |
| ACID   |                    |                              | Good                        |
| PETROLEUM SOLVENT                                  |                    |                              | Poor                        |
| REACTION TO FIRE                                   |                    |                              | Combustible                 |
| LAP ADHESION                                       | ASTM D882          | ≥ 240 kPa                    | ≥ 35 psi                    |
| TENSILE STRENGTH                                   | ASTM D882          | ≥ 4.1 MPa                    | ≥ 600 psi                   |
| ELONGATION   | ASTM D882          |                              | ≈ 9%                        |
| PERMEANCE  | ASTM E96           | 2.3 ng / Pa·s·m <sup>2</sup> | 0.04 perm                   |
| WATER VAPOR PERMEABILITY                           | ASTM E96 (Wet Cup) | 0.003 ng / Pa·s·m            | 0.002 perm-in               |

<sup>A</sup> Properties are subject to change. Consult Pittsburgh Corning.

<sup>B</sup> 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.

## 6. 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.

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Supplemental Instructions for Field-Applied Jacketing

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|--|---|
| <p><b>STEP 1</b></p> <p>After FOAMGLAS<sup>®</sup> insulation is installed; Strike a horizontal line along the insulation convenient for starting jacket positioning and to insure a uniform lap line.</p> | <p><b>STEP 2</b></p> <p>Cut a section of jacketing long enough to fit around the insulated pipe and have a 50 mm (2 in.) overlap.</p>   |
|   |   |
| <p><b>STEP 3</b></p> <p>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.</p>                    | <p><b>STEP 4</b></p> <p>Apply Starting on the chalk line, press the surface of the jacketing half way around the FOAMGLAS<sup>®</sup> insulation. Best results are achieved when the start point results in the overlap terminating in a water shedding position.</p> |
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|---|--|
| <p><b>STEP 5</b></p> <p>Apply pressure to ensure that jacket achieves adhesion without trapping air.</p>  | <p><b>STEP 6</b></p> <p>Remove the remaining release film on the overlap and press tightly to seal the longitudinal joint.</p>   |
|    |    |
| <p><b>STEP 7</b></p> <p>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.</p> | <p><b>STEP 8</b></p> <p>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.</p> |
|    |    |







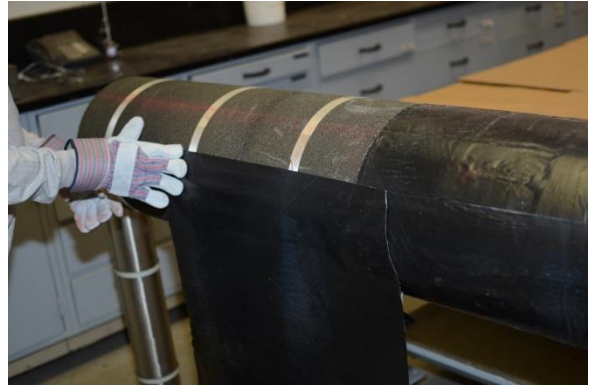
## STEP 9

Continue applying jacketing sections as described above taking care to overlap and offset the starting point of each section from the previous one.



## STEP 10

Apply pressure to ensure that jacket achieves adhesion without trapping air.



## STEP 11

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



## STEP 12

Best results are achieved when overlaps are positioned one above, one below, one above configuration.

