

## STOPAQ® OUTERWRAP HSPE

### Product Information

**Product description:** Stopaq® Outerwrap HSPE is an outer wrap tape providing mechanical protection to corrosion preventing coating systems comprising e.g. Stopaq® Wrappingband CZ or CZH. It is made of a flexible polyethylene backing and a high tack butyl rubber adhesive, provided with a release liner for proper unwinding of the roll. It is well suited for underground and submerged applications. The butyl rubber adhesive layer provides good adhesion to the outer surface of the Stopaq® Wrappingband, to existing plant applied PE coating, as well as to its own backing. The Outerwrap has good resistance to impacts and indentations and abrasion as well as resistance against the influences from alkalis and acids.

#### Features:

- Cold applied tape.
- High tack adhesive
- Good conformability.
- Good adhesion to Stopaq® Wrappingband as well as to its own backing.

#### Benefits:

- Very useful in cold weather applications
- Very suitable for manual application
- Easy to stretch and to apply
- Resists impacts and indentations which may occur during installation and backfilling.

### Application examples

**Pipes and Vessels:** Provides mechanical protection of Stopaq® corrosion preventing coating systems applied on pipeline structures and reservoirs.

**Field joints:** Provides mechanical protection of Stopaq® corrosion preventing coating systems applied on girth-weld joints of on-shore pipelines.

**Pipe fittings:** Provides mechanical protection of Stopaq® corrosion preventing coating systems applied on pipe fittings like elbows, bends, tees, reducers and flanges.

### Product properties of Stopaq® Outerwrap HSPE

<b>Colour</b>	Black
<b>Thickness</b>	Backing: 0.25 mm [10 mils] Total: 1.25 mm [50 mils]
<b>Temperature ranges</b>	Service: - 45 to +50°C [-49 to +122°F] Short term max. +70°C [158°F]
<b>Peel strength between layers</b>	<u>Before ageing:</u> <sup>A)</sup> – @23°C [73°F] ≥ 0.2 N/mm [≥ 18 oz/in] (1.3 N/mm typical) [146 oz/in] – @50°C [122°F] ≥ 0.02 N/mm [≥ 1.8 oz/in] (0.2 N/mm typical) [23 oz/in] <u>After thermal ageing for 100 days @+70°C [158°F] <sup>A)</sup></u> – P <sub>100</sub> / P <sub>0</sub> ≥ 0.50 (1.3 typical) <u>After hot water immersion 100 days @+50°C [122°F] <sup>A)</sup></u> – P <sub>100</sub> / P <sub>0</sub> ≥ 0.75 (1.0 typical)
<b>Peel strength to plant coating PE</b>	<u>Before ageing:</u> <sup>A)</sup> – @23°C [73°F] ≥ 0.7 N/mm [≥ 64 oz/in] – @50°C [122°F] ≥ 0.10 N/mm [≥ 9.0 oz/in] <u>After thermal ageing for 100 days @+70°C [158°F] <sup>A)</sup></u> – P <sub>100</sub> / P <sub>0</sub> ≥ 0.75 (1.7 typical) <u>After hot water immersion for 100 days @+50°C [122°F] <sup>A)</sup></u> – P <sub>100</sub> / P <sub>0</sub> ≥ 0.75 (1.0 typical)
<b>Thermal ageing resistance</b>	After thermal ageing for 100 days at @+70°C: <sup>A)</sup> – Elongation at break E100 / E0 ≥ 0.75 (typical 0.9)
<b>Properties of coating system comprising Stopaq® Wrappingband CZH and Stopaq® Outerwrap HSPE</b>	
<b>Total thickness</b>	4.1 – 4.5 mm
<b>Self-healing test</b>	Self-healing of an artificial defect of Ø 6 mm: – @ +23 °C: no holiday (≤ 24 hr.) – @ +70 °C: no holiday (≤ 24 hr.)
<b>Impact resistance</b>	No holiday when tested at 15 J [132 in.lbf] <sup>A)</sup>
<b>Indentation resistance</b>	Tested @23°C [73°F] and @50°C [122°F] with test pressure 1.0 N/mm <sup>2</sup> : <sup>A)</sup> – Residual thickness ≥ 0.6 mm [1/4"]
<b>Cathodic disbondment resistance</b>	Tested @23°C [73°F] and @50°C [122°F]: <sup>A)</sup> – No holiday, disbondment 0 mm. Artificial defect Ø 6 mm [1/4"] self-healed within 24 hours

<sup>A)</sup> ISO 21809-3:2016 coating type 13A

### General order information

<b>Product</b>	Stopaq® Outerwrap HSPE is available in rolls, wound on cardboard cores, packed in cardboard boxes:  Art. Nr.: Product dimensions and contents: 1270-01524 2 inch x 50 ft, 24 rolls/box, 648 rolls/pallet 1272-01524 4 inch x 50 ft, 12 rolls/box, 324 rolls/pallet Other sizes on request.
<b>Handling</b>	Handle with care. Keep boxes upright.
<b>Storage</b>	Store indoor, clean and dry, away from direct sunlight in a cool place below +45°C [113°F].

Application instruction - Job preparation	
<b>Tools, equipment and auxiliaries</b>	Scissors, knife and measuring tape
<b>Additional coating materials</b>	Stopaq® Outerwrap HSPE is applied as part of a coating system that consists of other Stopaq® coating materials, e.g. Corrosion preventing materials: – Stopaq® Wrappingband CZ or CZH – Stopaq® 4100 Putty, Paste CZ or CZH Additional mechanical protective materials: – Stopaq® Polyester – Stopaq® Outerglass Shield XT Grey
<b>High humidity</b>	Stopaq® Outerwrap HSPE can be applied in a humid atmosphere. The substrate should be free from condensing water which can be reached by keeping the temperature at least 3°C [5°F] above dew point.
<b>Work area and substrate</b>	The substrate should be dry, clean and protected against negative weather influences. Temperature of the substrate should preferably be between +10°C [50°F] and +30°C [86°F].
<b>Product conditions</b>	Stopaq® Outerwrap HSPE should be dry and the temperature should preferably be between +10°C [50°F] and +30°C [86°F] for the ease of application.

Application instruction - Brief version	
<b>General</b>	Specific application instructions are available at Seal For Life Industries, e.g. for wrapping of pipes, field joints, fittings, etc.
<b>Example: Pipe wrapping</b>	Stopaq® Outerwrap HSPE has a release liner on the adhesive side of the tape that must be removed just prior to application onto substrates.  Horizontal pipelines should be wrapped circumferentially from left-to-right or from right-to-left. Pipelines positioned with an angle deviating from horizontal should be wrapped from bottom to top (e.g. risers).  In general Stopaq® Outerwrap HSPE should be applied with tension by gently pulling the roll of material, unless stated otherwise in specific application instructions.  Avoid air inclusions. Avoid tenting and bridging.  Start wrapping Outerwrap HSPE with two full circumferential wraps perpendicular to the pipe, leaving 3 mm of the previously applied Stopaq® Wrappingband visible at the boundary.

<b>Example (continued)</b>	After the first circumferential wrap, consecutive wraps should have an overlap of $\geq 50\%$ , which can be obtained by spiral application of Outerwrap HSPE.  Continue spiral wrapping until reaching the boundary of the area to be coated, leaving 3 mm of the previously applied Stopaq® Wrappingband visible at the boundary.  When more than one roll of Outerwrap HSPE is needed to continue wrapping, an overlap on the end of the previously applied Outerwrap HSPE should be created of at least 100 mm.  End wrapping with two full circumferential wraps perpendicular to the pipe. End with a quarter circumferential wrap of Outerwrap HSPE without tension. In case of wrapping on horizontal pipes, the tape end should face downwards ending at 3 o'clock position. Cut off in a tie-form.  The applied Outerwrap HSPE must look smooth and tight and should be shaped around all details and into corners.
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Handling and commissioning	
<b>Exposure to loads</b>	Objects coated with Stopaq® coating systems should not be exposed to excessive loads e.g. from supports- or lifting equipment.
<b>Immersion or burying</b>	Immersion or burying is possible immediately after completion of the coating application. Consult data sheets for specific instructions of additional materials used. Backfill and compact with clean sand and filling material without sharp stones or hard lumps of soil.

Information	
<b>Documentation</b>	Extensive information is available on our web-site. Application instructions and other documentation can be obtained by contacting our head office, from our local distributor or by sending email to <a href="mailto:info@stopaq.com">info@stopaq.com</a>
<b>Certified staff</b>	Application of the described coating system should be carried out by certified personnel.