

STOPAQ® OUTERWRAP PVC

Product Information

Product description: Stopaq® Outerwrap PVC is a UV-resistant flexible polyvinyl chloride tape, coated with a modified pressure sensitive rubber resin adhesive. Stopaq® Outerwrap PVC is used for the mechanical protection of corrosion preventing coating systems such as Stopaq® Wrappingband CZ and CZH. It is well suited for underground and submerged applications. The heavy-duty adhesive layer provides good adhesion to the outer surface of the Stopaq® Wrappingband as well as to its own backing. The Outerwrap has good resistance to impacts, indentations and abrasion, and is also resistant to chemicals like alkalis and acids.

Features:

- Easy to apply
- Cold applied
- Flexible, good conformability
- Good adhesion to Stopaq® Wrappingband as well as to its own backing
- Excellent impact resistance
- Wide service temperature range
- REACH compliant, does not contain Substances of Very High Concern (SVHC).

Benefits:

- Very well suited for manual application
- Easy to stretch and to apply
- Excellent mechanical protection of Stopaq® corrosion prevention products
- Resists impacts and indentations which may occur during installation and backfilling
- Supports self-healing of completed coating system
- Good resistance to ageing, even when exposed to maximum temperature for longer periods of time
- No curing or waiting time, ready for immediate service

Application examples

Pipes and Vessels: Mechanical protection of Stopaq® corrosion preventing coating systems applied on carbon steel pipeline structures and reservoirs.

Field joints: Mechanical protection of Stopaq® corrosion preventing coating systems applied on carbon steel girth-weld joints of on-shore pipelines.

Pipe fittings: Mechanical protection of Stopaq® corrosion preventing coating systems applied on carbon steel pipe fittings like elbows, bends, tees, reducers and flanges.

Product properties of Stopaq® Outerwrap PVC

Colour	Black
Thickness	Backing: 0,45 mm [18 mils] ± 10% Total: 0,5 mm [20 mils] ± 10%
Temperatures	Service: - 45 to +70 °C [-49 to 158 °F] Short term max.: +90 °C [194 °F]
Peel strength between layers	Before ageing (P ₀) ^{A)} - @ +23 °C [73 °F]: ≥ 0,20 N/mm [≥18 ozf/in] - @ +70 °C [158 °F]: ≥ 0,02 N/mm [≥1.8 ozf/in] After thermal ageing for 100 days @ 90 °C [194 °F] - P ₁₀₀ / P ₀ ≥ 0,50 ^{A)} After hot water immersion for 100 days at 70 °C [158 °F] - P ₁₀₀ / P ₀ ≥ 0,75 ^{A)}
Thermal ageing resistance	Elastic modulus after thermal ageing for 100 days @ +90 °C [194 °F] - E ₁₀₀ / E ₀ ≥ 0,75 ^{A)} Elongation at break after thermal ageing for 100 days @ 90 °C [194 °F] - E'100 / E'0 ≥ 0,75 ^{A)}

Properties of coating system comprising Stopaq® Wrappingband CZH and Stopaq® Outerwrap PVC

Total thickness	3,0 mm ± 10%
Self-healing test	Self-healing of an artificial defect of Ø 6 mm [1/4"]: - @ -45 °C [-49 °F]: no holiday (≤ 3 months) - @ +23 °C [73 °F]: no holiday (≤ 24 hr.) - @ +70 °C [158 °F]: no holiday (≤ 24 hr.)
Impact resistance	Tested at 15 J [132 in.lbf] and @ +23 °C [73 °F] ^{A)} - no holidays
Indentation resistance	Tested at 1,0 N/mm ² [145 psi] ^{A)} - @ +23 °C [73 °F]: no holiday, residual coating thickness ≥ 0,6 mm [1/4"] - @ +70 °C [158 °F]: no holiday, residual coating thickness ≥ 0,6 mm [1/4"]
Cathodic disbondment resistance	After 28 days ^{A)} ▪ @ +23 °C [73 °F]: disbondment 0 mm, no holiday ▪ @ +70 °C [158 °F]: disbondment 0 mm, no holiday In all cases self-healing completed within 24 hr.

^{A)} ISO 21809-3:2016 coating type 13A

General order information

Product	Stopaq® Outerwrap PVC is available in rolls, wound on cardboard cores, packed in cardboard boxes:
Art. Nr.:	Product dimensions (W x L) and contents:
Black – 1120:	50mm x 10m: 60 pcs/box; 1800 pcs/pallet
1122:	50mm x 30m: 18 pcs/box; 630 pcs/pallet
1121:	75mm x 30m: 12 pcs/box; 420 pcs/pallet
1125:	100mm x 30m: 12 pcs/box; 336 pcs/pallet
1126:	150mm x 30m: 6 pcs/box; 210 pcs/pallet
1124:	400mm x 40m: 4 pcs/box; 72 pcs/pallet
Handling	Handle with care. Keep boxes upright.
Storage	Store indoor, clean and dry, away from direct sunlight in a cool place below +40°C [104°F].

Application instruction - Job preparation	
Tools, equipment and auxiliaries	Scissors, knife and measuring tape
Additional coating materials	Stopaq® Outerwrap PVC is applied on Stopaq® corrosion preventing coating materials, such as: <ul style="list-style-type: none">Stopaq® Wrappingband CZ or CZHStopaq® Paste CZ or CZH Additional mechanical protective materials may be applied over the Outerwrap, e.g.: <ul style="list-style-type: none">Stopaq® PolyesterStopaq® Outerglass Shield XT Grey
High humidity	Stopaq® Outerwrap PVC 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 [6 °F] above dew point.
Work area and substrate	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 +70 °C [158°F].
Product conditions	Stopaq® Outerwrap PVC 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	
Specific application instructions are available at Seal For Life Industries, e.g. for wrapping of pipes, field joints, fittings, etc.	
Example - Pipe wrapping	<p>Horizontal pipelines should be spirally wrapped 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).</p> <p>In general Stopaq® Outerwrap PVC should be applied with tension by gently pulling the roll of material, unless stated otherwise in specific application instructions.</p> <p>Start wrapping Outerwrap PVC with two full circumferential wraps perpendicular to the pipe, leaving 3 mm [1/8"] of the previously applied Stopaq® Wrappingband visible at the boundary.</p>

Example - Pipe wrapping (continued)	
	<p>After application of the circumferential wraps, consecutive spiral wraps should have an overlap of ≥ 50%.</p> <p>Avoid air inclusions. Avoid tenting and bridging</p> <p>Continue spiral wrapping until reaching the boundary of the area to be coated, leaving 3 mm [1/8"] of the previously applied Stopaq® Wrappingband visible at the boundary.</p> <p>When more than one roll of Outerwrap PVC is needed to continue wrapping, an overlap on the end of the previously applied Outerwrap PVC should be created of at least 100 mm [4"].</p> <p>End wrapping with two full circumferential wraps perpendicular to the pipe. End with a quarter circumferential wrap of Outerwrap PVC 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.</p> <p>The applied Outerwrap PVC must look smooth and tight and should be shaped around all details and into corners..</p>

Handling and commissioning	
Exposure to loads	Objects coated with Stopaq® Outerwrap PVC should not be exposed to excessive loads e.g. from supports- or lifting equipment.
Immersion or burying	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	
Documentation	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 info@stopaq.com
Certified staff	Application of the described coating system should be carried out by certified personnel.