

STOPAQ[®] OUTERGLASS SHIELD XT24

Product Information

Generic type: STOPAQ[®] Outerglass Shield XT24 is an odorless and solvent free pre-impregnated, glass-fibre reinforced outerwrap wrapping cloth, curing to a hard shield by means of a water activated resin.

Product description: STOPAQ[®] Outerglass shield XT24 is used as a strong mechanical and impact protective layer on steel surfaces protected by a primary layer of STOPAQ[®] Wrappingband or Subsea Compound. Besides this the rolls can be directly applied to steel surfaces for reinforcement purposes. The material can be applied with various thicknesses depending on the mechanical impact stress class required. The composite material comes in rolls which are sealed in pouches. STOPAQ[®] Outerglass shield XT24 will cure by reaction with water or moisture to form a hard shell with a smooth surface, which is resistant to mechanical impacts, chemicals and weather influences. In case an additional UV-or decorative coating is specified, STOPAQ[®] TopCoat can be applied over Outerglass Shield XT24.

Features:

- Excellent impact resistance
- Wide temperature range during application and in service
- High performance in cold, hot, wet and chemically aggressive environments
- Fast and complete cure, independent of ambient temperature
- Pre-saturated so no field mixing required

Benefits:

- Safe and fast application
- Very high resistance to aging - even when exposed to max. or min. temperature for longer periods
- Resists impacts and indentations which often occur during installation and backfilling
- Secondary finishes (additional UV-protective- or decorative coatings) can be applied immediately after initial curing

Application examples

- **Steel reinforcement with Outerglass Shield XT24 as a primary layer**
- **Riser pipe splash zones**
- **Submerged pipes and construction parts**
- **Coating Repair**
- **Horizontal drilling for max. 6 inch piping**

Product properties STOPAQ[®] Outerglass Shield XT24

Colour	White
Thickness	0.65 mm per ply
Mix ratio	No mixing needed
Working time	30 – 40 minutes at 25°C (after opening pouch)
Initial curing time	30 – 60 minutes at 25°C (dry to touch)
Curing time to final hardness	7 days at 25°C
Hardness	90 shore D (ASTM D-2240)
Temperature of use	Application temp: +4 to +93°C Service temp: -18 to +121°C
Tensile strength warp direction	321 MPa (46525 psi)
Tensile strength fill direction	321 MPa (46525 psi)
Tensile modulus warp direction	18.1 GPa (2.63 msi)
Tensile modulus fill direction	18.1 GPa (2.63 msi)
Chemical resistance	Acetone, methylethylketone, gasoline, ethyl alcohol, toluene. List on request.

General order information

Order information	Available sizes of STOPAQ [®] Outerglass Shield XT24 are (w x l): Art. Nr. 1420: 8 in. x 60 ft. Art. Nr. 1421: 10 in. x 60 ft. Art. Nr. 1422: 12 in. x 60 ft.
Packaging	Individually packed in hermetically sealed vacuum foil pouch. Pouches packed in cardboard boxes.
Handling	Handle with care. Keep away from moisture. Open pouches only just prior to application. See safety data sheet for precautionary measures.
Shelf life	1 year when stored according to indicated conditions.
Storage	Keep in cool, dry, ventilated place and in sealed pouches. Keep from freezing. Store boxes upright.
Topcoat	Recommended to use in case of aboveground applications.

PRODUCT DATA SHEET STOPAQ® OUTERGLASS SHIELD XT24

Application instruction: Preparation		End of wrapping	End wrapping with two full circumferential straight wraps.
Application equipment	Scissors, knife, measuring tape, rubber gloves, application roller, safety glasses, compression film, water sprayer (when not applied submerged), perforation tool.	Tapering	At the start and end of the wrapping, the material should be tapered towards the substrate and the STOPAQ® corrosion preventing coating.
Ambient conditions	Ambient temperatures should be above +5°C	Application instruction: Curing	
Work area and substrate	The work area should be clean and can be wet or dry.	Compression	Apply a first ply of compression foil by wrapping it spirally over Outerglass Shield XT and also next to the area covered. Only little tension should be applied with wrapping the first ply. Apply a second ply of compression foil by spirally wrapping and use sufficient tension while applying it in order to shrink it to the surface.
Wrap conditions	The pouches of Outerglass Shield XT24 rolls should be opened one at a time just prior to application. Once a pouch is opened, the curing reaction with moisture present in air or water will start immediately. A roll of Outerglass Shield XT24 should be applied within the working time indicated, including wrapping of the compression foil and perforation.	Perforating	The compression foil should be perforated immediately after application with the special perforation tool. Use only slight pressure while perforating and avoid perforation of the Outerglass Shield XT24. The soft resin will then partially pour out of the perforation.
Calculation of amount of material needed	To obtain the product properties as indicated, it is recommended to apply a total of at least 4 plies of material. For calculation of correct amount of material needed, 50% self-overlap with spirally wrapping must be taken into account. Furthermore, wrapping must be started and ended with two full circumferentially wraps. Also, when wrapping direction along the pipe is reversed when applying more than 2 plies of material, two full circumferential straight wraps must be applied at the point of reverse.	Curing	The resin cures in approximately 1 hour, obtaining a fairly smooth and rigid structure.
Application instruction: Spiral application		Removal of foil	The compression foil can be removed after the resin has set to solid.
General	Open the pouches only directly prior to application. Moisture from air or water will react immediately with the resin. Do not cover large surfaces at once, since STOPAQ® Outerglass Shield XT24 needs to be compressed after application with compression foil; this must be done when the resin is still soft. STOPAQ® Outerglass Shield XT24 should be applied to the substrate with some tension by pulling the roll of material.	Final hardness	Final hardness is obtained after approximately 7 days.
Wetting of rolls	Open the vacuum sealed bag. The roll of material is packed in another bag. Open this too. Add plenty of water and knead the roll for approximately 1 minute.	Visual inspection	STOPAQ® Outerglass Shield XT24 should look smooth, should be tightly jointed to the substrate and no voids or gaps should be visible.
Start of wrapping	Start wrapping STOPAQ® Outerglass Shield XT24 at least 100 mm next to the corrosion preventing coating, e.g. STOPAQ® Wrappingband or STOPAQ® Subsea Compound. Apply two full circumferential straight wraps first.	Post-application instruction	
Water spraying	After application of each ply of STOPAQ® Outerglass Shield XT24, water should be sprayed all around the ply just applied (not applicable for submerged application)	Underground installation	Burying and installation in a ditch is possible immediately after completion of the curing. The areas coated with STOPAQ® Outerglass Shield XT24 should be handled with care and should not be exposed to impacts and loads from supports and lifting equipment.
Proceed of spirally wrapping	After the first circumferential wrapping, STOPAQ® Outerglass Shield XT24 should be applied slanted to create 50% overlap on the underneath ply of STOPAQ® Outerglass Shield XT24. Proceed wrapping until at least 100 mm of STOPAQ® Outerglass Shield XT24 has been applied next to the STOPAQ® corrosion preventing coating.	Back-filling	Backfill and compact with clean sand and fill material without sharp stones or hard lumps of soil.
Applying subsequent rolls	When more than one roll of STOPAQ® Outerglass Shield XT24 is needed to continue wrapping, an overlap should be created of at least 100 mm.	STOPAQ® information	
		Documentation	Extensive information is available on our web-site. Application instructions, "STOPAQ® Technical Standard" can be obtained from our head office or local distributor; info@stopaq.com
		Certified staff	The application of STOPAQ® coating system should always be carried out by certified personnel.



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