

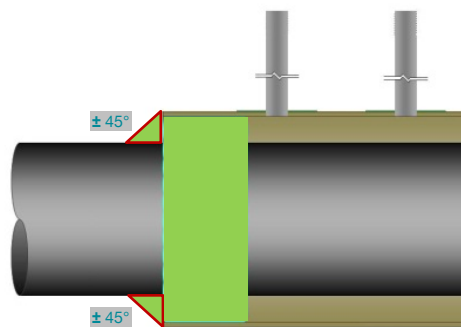
(side view, section casing)

1

The ends of the casing have to be clean and dry prior the installation of CZH Paste. This has to be applied in the area between the casing and carrier pipe with a depth of approx. 50mm-100mm.



2



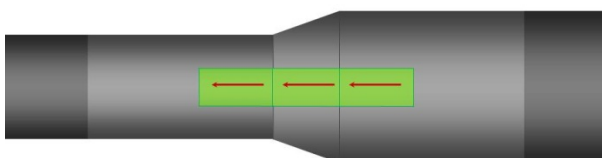
(side view, section casing)

3

Apply CZH Paste without air inclusions. The entire annulus has to be sealed. Apply the Paste with an angle of $\pm 30^{\circ}$ - 45° between the carrier pipe and the casing.



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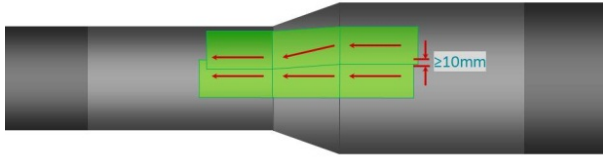
5

Ensure a proper surface preparation prior to the application of Wrappingband.



6

Apply strips of Wrappingband onto the reducer, starting on the larger diameter pipe. Press the Wrappingband without air inclusions onto the surface.



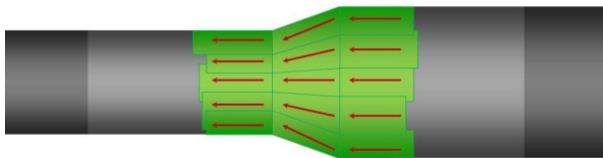
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The next strips must be applied with an overlap of at least 10mm on the larger diameter pipeline.



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The overlap will increase during application on the reducer.



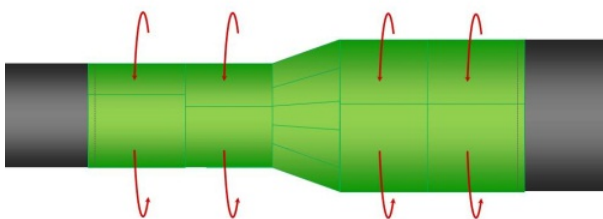
9

Continue until the entire area is covered with Wrappingband.



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Asymmetric reducers can be coated using the same procedure as with a symmetric reducer.



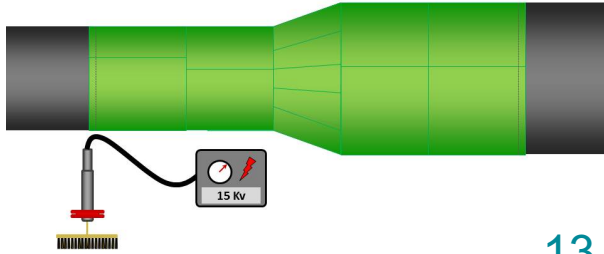
11

Apply Wrappingband onto the pipe sections according chapter 5 or 6. Start touching the reducer. Width according to client specification.



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Wrappingband can also be applied with spiral wrap.



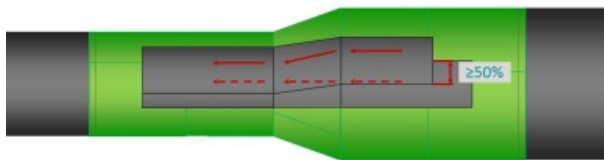
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A holiday test using a high voltage tester must be carried out on the green Stopaq Wrappingband prior to the application of any Outerwrap. The test must be carried out at a minimum of 15kV.



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Always use approved and certified holiday test equipment.



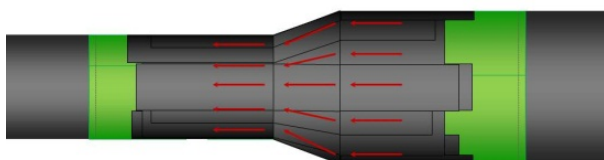
15

Outerwrap has to be applied following the same procedure as Wrappingband, but with a minimum overlap of 50% on the larger diameter pipeline. Apply without tension.



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Outerwrap can be applied spirally on reducers with a small diameter difference. Apply with approx. 75% overlap over the reducer.



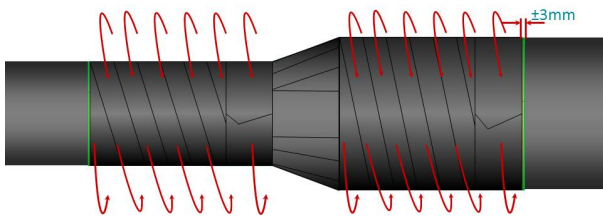
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Continue until the entire circumference is covered with Outerwrap.



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When spiral wrapped, the Outerwrap must be applied with tension and without air inclusions.

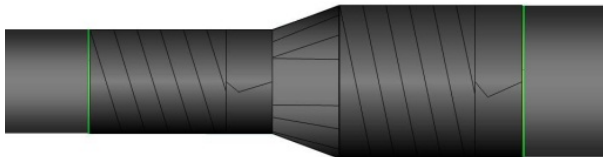


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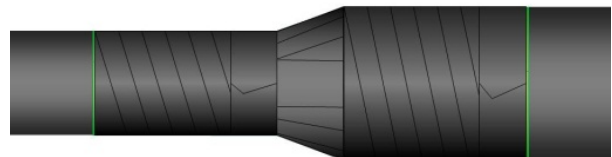
Finish the reducer with Outerwrap on the straight pipe sections. Apply with 50% overlap, with tension and without air inclusions. Keep 3mm of Wrappingband visible.



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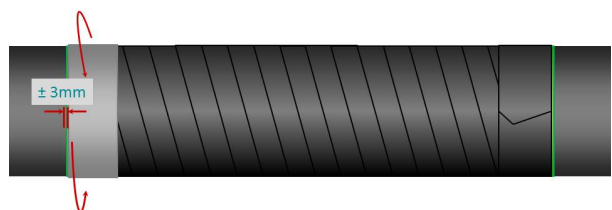
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Prior to the application of Outerglass Shield XT the pipeline should be coated with Wrappingband and Outerwrap



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Clean and wet the surface. Open the pouches of Outerglass Shield XT just before application.



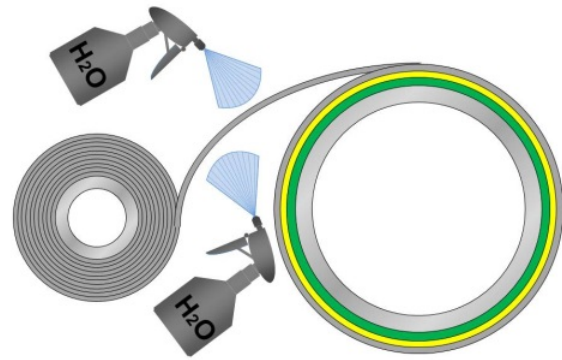
24

Start with 2 circumferential wraps. Overlap according to client specification. Outerglass Shield XT has a limited application time after the pouches are opened.



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To increase the application time, the pouches with Outerglass Shield XT can be cooled down in iced water.

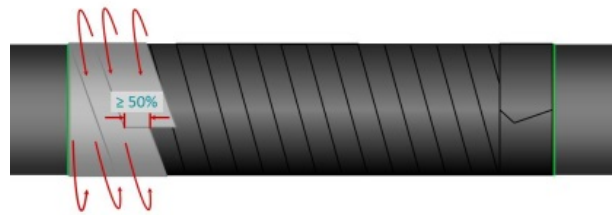


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During application Outerglass Shield XT should be wetted by spraying with water.

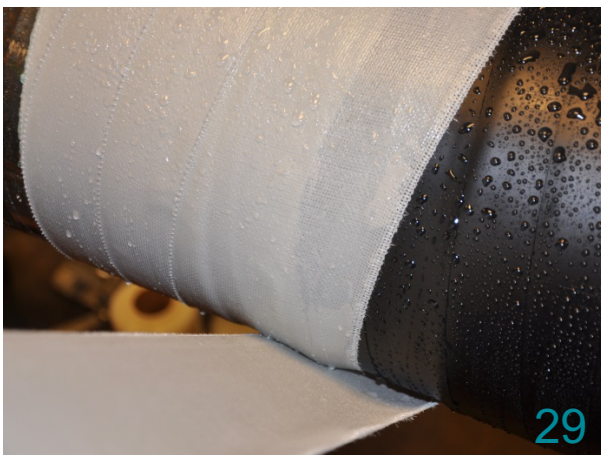


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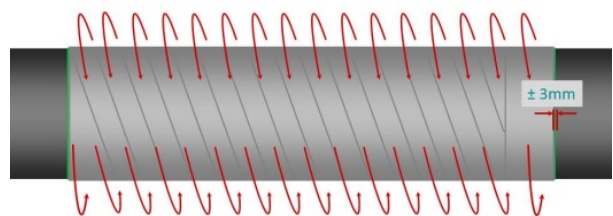
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Apply Outerglass Shield XT with tension and a minimum overlap of 50%.



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Use appropriate gloves during the application.

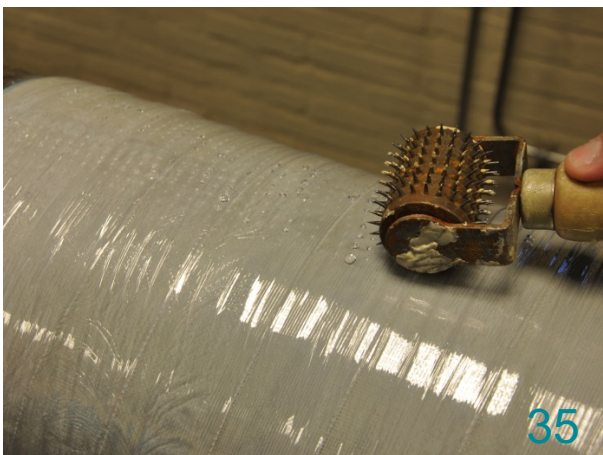


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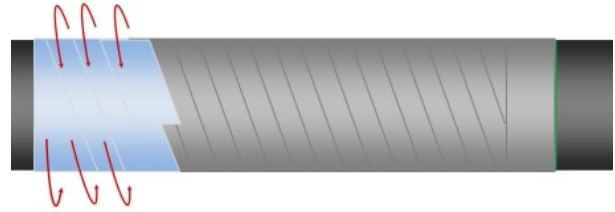
Continue application until the entire area is covered. Keep wetting the Outerglass Shield XT. Finish with 2 straight circumferential wraps.



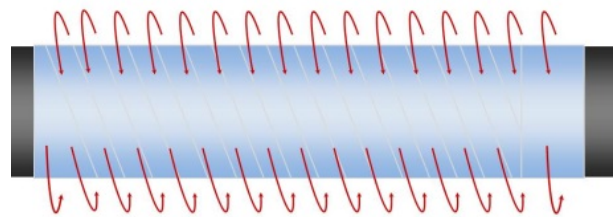
If necessary, extra layers or more overlap, for example minimum 66% to apply 3 layers Outerglass Shield XT can be wrapped in case additional mechanical strength is needed.



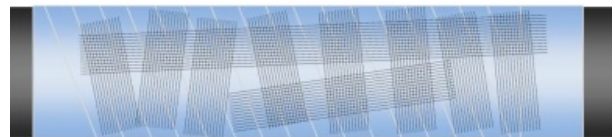
Finish beyond the extremity of Outerglass Shield XT.



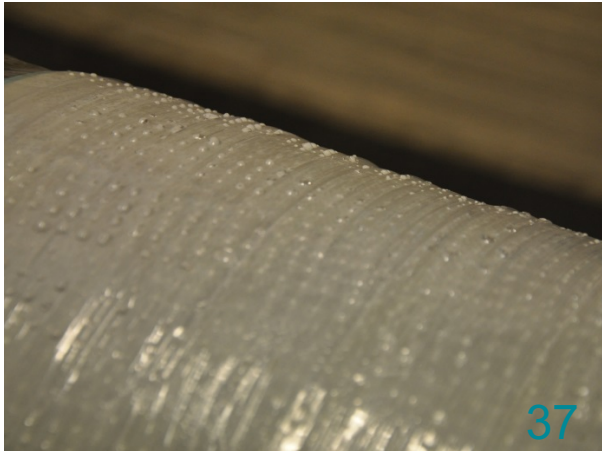
Wrap compression foil immediate after installation of Outerglass Shield XT. Start beyond the extremity of Outerglass Shield and wrap with tension.



Wrap compression foil in the same wrapping direction as the Outerglass Shield XT.

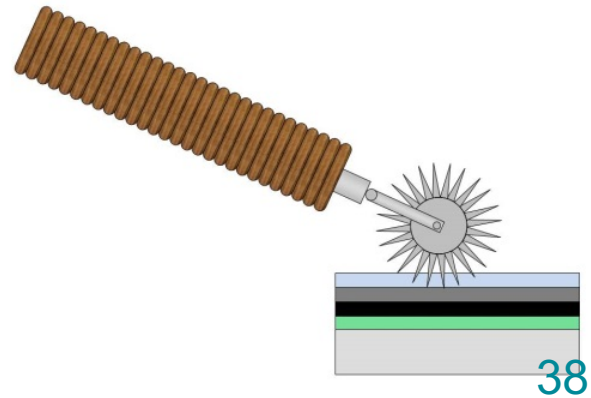


Compression foil has to be applied within the application time of Outerglass Shield XT.



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Check if the Outerglass Shield XT is completely covered with compression foil.



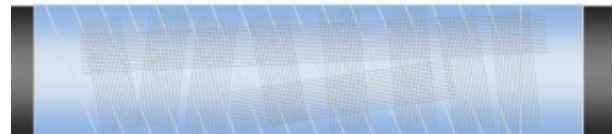
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Use puncture roller to cautiously perforate the compression foil.



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Only perforate the compression foil, do not perforate the Outerglass Shield XT, Outerwrap and Wrappingband.



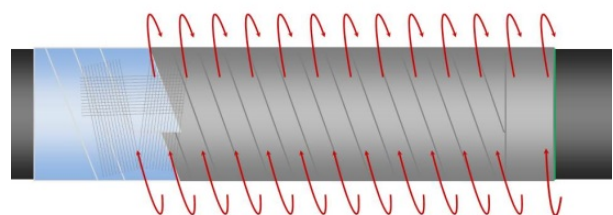
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During the curing of the Outerglass Shield XT, some resin might be visible through the perforations.



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Curing time is depending on temperature and amount of layers of Outerglass Shield XT.



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Remove compression foil after the Outerglass Shield XT is cured e.g. in order to enable application of additional top coatings.



The coating performance will not be influenced when the compression foil is not removed.



Outerglass Shield XT has to be painted with an UV resistant topcoat for above ground applications.



Backfill with clean sand. Backfill is possible immediately after the Outerglass Shield XT has cured.

General information about the application of Outerglass Shield XT.

- The pouches of Outerglass Shield XT shall be opened one at a time and just prior to application. Once a pouch is opened, the curing reaction with moisture present in air or water will start immediately.
- The Outerglass Shield XT shall be applied within the working time indicated, including application of compression foil and perforation.
- Do not cover large surfaces at once, since Outerglass Shield XT needs to be compressed immediately after application with compression foil.
- Always apply and perforate compression foil well within the curing time of Outerglass Shield XT.
- In case overlapping existing Outerglass Shield XT, it shall only be applied on fully cured Outerglass Shield XT and after the compression foil has been removed and the surface has slightly been abraded.
- Continuous wetting of Outerglass Shield XT during application is required.
- Consult Safety Data Sheet and Product Data Sheet for appropriate personal safety measures, personal protective gear, application conditions etc.

