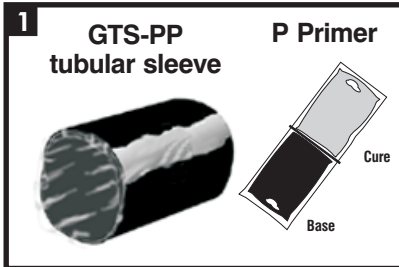


GTS-PP - CanusaTube™

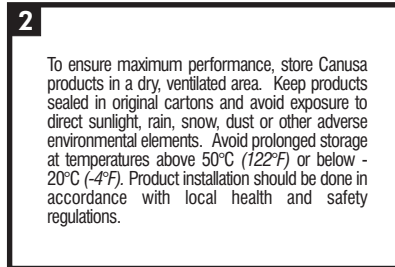
One-piece wraparound sleeve for the corrosion protection of polypropylene pipelines

Product Description



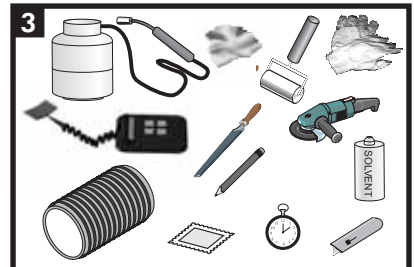
GTS-PP tubular sleeves are designed for the corrosion protection of polypropylene coated pipelines. The joint completion system also uses an epoxy primer.

Storage & Safety Guidelines



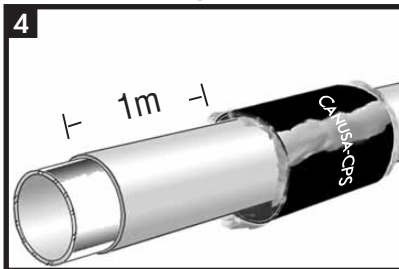
To ensure maximum performance, store Canusa products in a dry, ventilated area. Keep products sealed in original cartons and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage at temperatures above 50°C (122°F) or below -20°C (-4°F). Product installation should be done in accordance with local health and safety regulations.

Equipment List



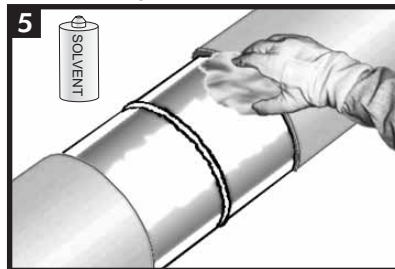
Propane tank, hose, torch & regulator
 Appropriately sized induction coil, stop watch
 Tools for surface abrasion, power grinder,
 Digital thermometer with suitable probe
 Knife, pencil, roller, rags & approved solvent cleanser
 Epoxy applicator pad, wet film thickness gauge
 Standard safety equipment; gloves, goggles, hard hat, etc.

Sleeve Positioning

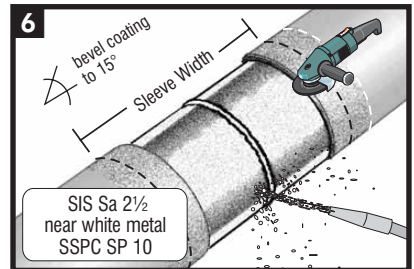


Ensure the pipe is clean and dry before touching the sleeve with the pipe. Before welding together the carrier pipe, slide the CanusaTube™ GTS-PP sleeve at least 1 m away from the cutback area of the joint. Do not remove the PE protective sock until sleeve inspection.

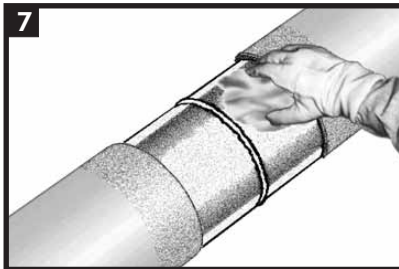
Surface Preparation



Clean any exposed steel and adjacent pipe coating with a solvent cleanser to remove the presence of oil, grease, and other contaminants.

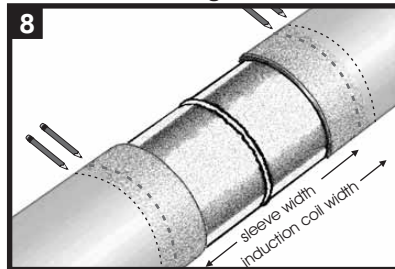


Ensure that the pipe dry before cleaning. Thoroughly clean the weld area with a sand or grit blaster to "near white metal" SIS Sa 2½ or equivalent. Immediately prior to installation, lightly abrade or grit blast the pipe coating adjacent to the weld area to a distance of 25mm (1") beyond each end of the sleeve width. Maximum total cutback length is 300mm (12"). Using the grinder, ensure that the PP mainline coating edges are beveled to 15° from the horizontal.



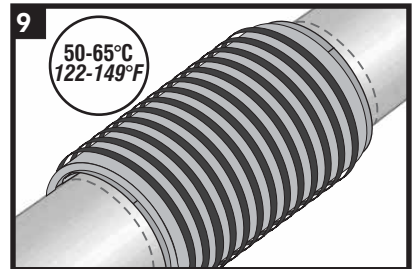
Wipe clean or air blast the steel and pipe coating to remove foreign contaminants.

Positional Markings



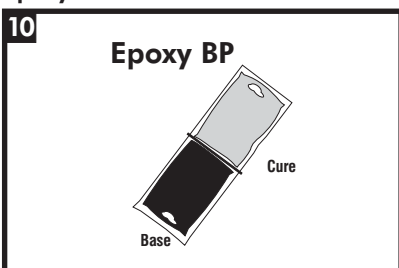
Measure and mark the sleeve width of the Wrapid Sleeve™ GTS-PP sleeve across the joint. Also, measure and mark the induction coil so it is centered over the joint and sleeve.

Pre-Warm



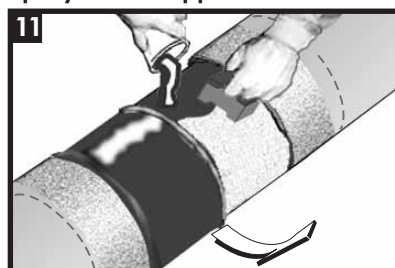
Using the appropriate sized induction coil or propane torch, pre-warm the joint area to 50-65°C (122-149°F). Using a temperature measuring device, ensure that the correct temperature is reached on the steel.

Epoxy Primer



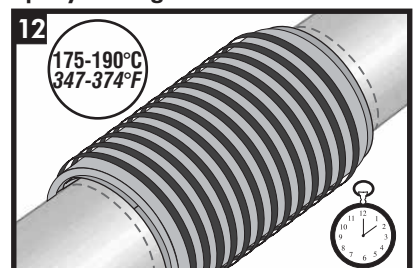
Follow the Preparation, Mixing and Application instructions provided with the supplied Canusa Epoxy Pack. For partial kit quantities: mix the P Primer Cure with the P Primer Base (4 parts base to 1 part cure by volume). Mix for a minimum of 1 minute to assure uniform mixture. Ensure that the primer has been pre-heated to 40°C (104°F) when mixed.

Epoxy Primer Application



Apply mixed epoxy to a thickness of 150-230 μm (6-9 mils) on all exposed bare metal.

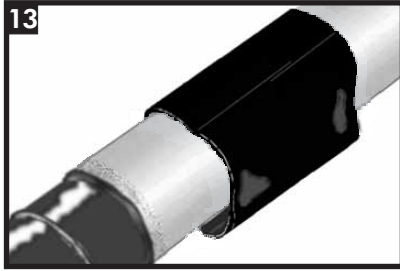
Epoxy Curing and Pre-Heat



Carefully, move the induction coil into place and pre-heat the steel cutback to 175-190°C (347-374°F) within a time of 2-3 minutes. Remove the coil.

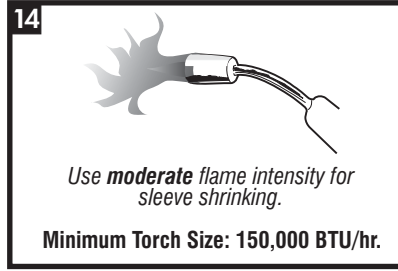
GTS-PP - CanusaTube™

Sleeve Inspection



Remove and discard the PE sock that protects the CanusaTube™ GTS-PP sleeve during shipment. Ensure that there is no dirt or moisture inside the tube and that the tube is not cut. If the CanusaTube™ is not usable, a Wrapid Sleeve™ GTS-PP should be used.

Flame Intensity & Torch Size



Use *moderate* flame intensity for sleeve shrinking.

Minimum Torch Size: 150,000 BTU/hr.

Follow the above flame and torch intensity guidelines.

Sleeve Installation

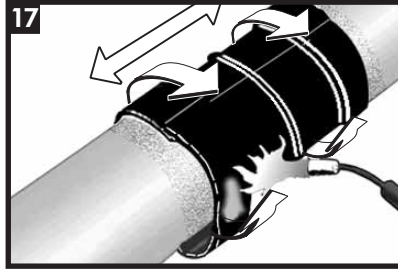


Centre the sleeve over the total cutback.

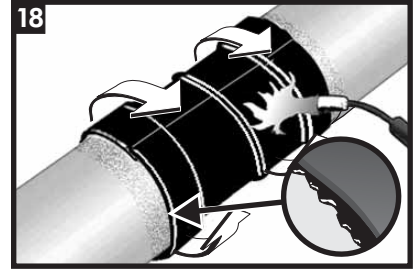
Heat Shrinking



Using the appropriate sized torch and broad strokes, begin at the centre of the sleeve and heat circumferentially around the pipe. If the backing becomes shiny or gives off smoke, move the torch away from that area.

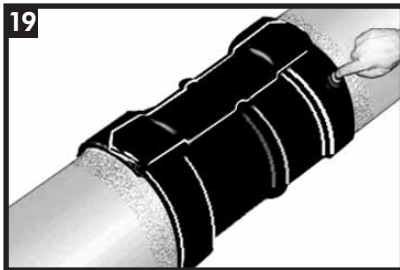


Continue heating the sleeves from the centre toward the coating end of the sleeves until recovery is complete. In a similar manner, heat and shrink the remaining side. Initial shrinking has been completed when the sleeve fully conforms to the entire pipe profile.

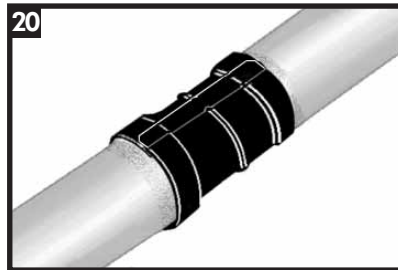


Finish shrinking the sleeve with long circumferential strokes over the coating overlap surface to ensure a uniform bond. Adhesive should begin to ooze at the sleeve edges all around the circumference.

Quality Check - Adhesion Test

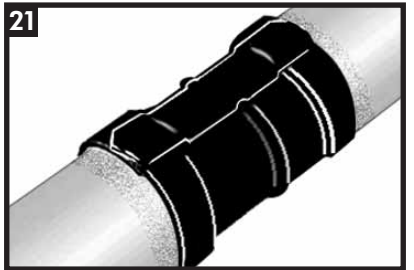


Test sleeve adhesion by gently pressing the sleeve edge with a gloved finger. The sleeve is well bonded when the adhesive and coating remain intimately contacted. If required to improve bonding, additional heat should be applied to the sleeve.



Allow the sleeve to cool for at least five minutes.

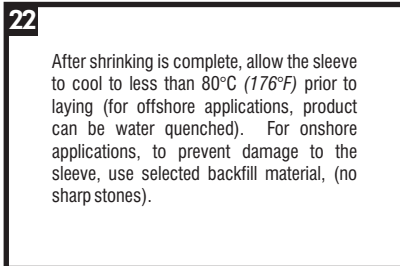
Inspection



Visually inspect the installed sleeve for the following:

- Sleeve is in full contact with the steel joint.
- Adhesive flows beyond both sleeve edges.
- No cracks or holes in sleeve backing.
- Minimum overlap of 50mm onto coating after cooled.

Onshore & Offshore Guidelines



After shrinking is complete, allow the sleeve to cool to less than 80°C (176°F) prior to laying (for offshore applications, product can be water quenched). For onshore applications, to prevent damage to the sleeve, use selected backfill material, (no sharp stones).



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