KLON & KLNN
One-piece protective sleeve with pre-attached closure

**Product Description**

Canusa WrapidSleeves® are shipped pre-cut with a pre-attached closure. The adhesive is protected from contamination by an inner liner.

**Equipment List**

- Propane tank, hose, torch & regulator;
- Appropriate tools for surface abrasion;
- Knife, roller, rags & approved solvent cleaner;
- Digital thermometer with suitable probe;
- Standard safety equipment;
- Gloves, goggles, hard hat, etc.

**Flame Intensity & Torch Size**

<table>
<thead>
<tr>
<th>Pipe O.D.</th>
<th>Minimum Torch Size</th>
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<td>≤ 450mm (18”)</td>
<td>150,000 BTU/hr.</td>
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<tr>
<td>&gt; 450mm (18”)</td>
<td>300,000 BTU/hr.</td>
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**Surface Preparation**

Ensure that the PE coating edges are beveled to 30°. Clean exposed steel and adjacent pipe coating with a solvent cleaner to remove the presence of oil, grease, and other contaminants.

**Pre-Heat**

Pipe O.D. ≤ 450mm (18”)
- Use moderate flame intensity for pre-heating and shrinking.

Pipe O.D. > 450mm (18”)
- Use moderate to high flame intensity for pre-heating and shrinking.

**Sleeve Installation**

1. Centre the sleeve over the joint so that the sleeve overlaps between the 10 and 2 o’clock positions. Press the underlap firmly into place.

2. Remove the remaining release liner.

3. Wrap the sleeve loosely around the pipe, ensuring the appropriate overlap. Gently heat the backing of the underlap and the adhesive side of the overlap.

4. Press the closure firmly into place.

5. Ensure that the pipe is dry before cleaning. Using a power wire brush, abrade the pipe to a minimum of St3/SP3 (abrasive blast to Sa2.5/SP10 recommended). Lightly abrade the pipe coating adjacent to the cutback area to a distance of 50mm (2”) beyond each end of the sleeve width.

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

7. Pre-heat the joint area to the minimum required temperature. Using a temperature measuring device, ensure that the correct temperature is reached on the steel and at least 50mm (2”) on each side of the sleeve.

8. Partially remove the release liner and gently heat the underlap approximately 150 mm (6”) from the edge.
Gently heat the closure and pat it down with a gloved hand. Repeating this procedure, move from one side to the other. Smooth any wrinkles by gently working them outward from the centre of the closure with a roller.

Using the appropriate torch, begin at the centre of the sleeve and heat circumferentially around the pipe. Use broad strokes. If utilizing two torches, operators should work on opposite sides of pipe.

Continue heating from the centre toward one end of the sleeve until recovery is complete. In a similar manner, heat and shrink the remaining side.

Shrinking has been completed when the adhesive begins to ooze at the sleeve edges all around the circumference. Finish shrinking the sleeve with long horizontal strokes over the entire surface to ensure a uniform bond.

While the sleeve is still hot and soft, use a hand roller to gently roll the sleeve surface and push any trapped air up and out of the sleeve, as shown above. If necessary, reheat to roll out air.

Continue the procedure by also firmly rolling the closure with long horizontal strokes from the weld outwards.

Visually inspect the installed patch 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.

Backfilling Guidelines

After shrinking is complete, allow the sleeve to cool for 2 hours prior to lowering and backfilling. To prevent damage to the sleeve, use selected backfill material (no sharp stones or large particles) otherwise an extruded polyethylene mesh or other suitable shield should be used.

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 35°C (95°F) or below -20°C (-4°F). Product installation should be done in accordance with local health and safety regulations.

These installation instructions are intended as a guide for standard products. Consult your Canusa representative for specific projects or unique applications.

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