Pipeline Repair Products

Repair Patch, Melt Stick, and Mastic Filler.

Installation Guide

Pipeline Repair Products

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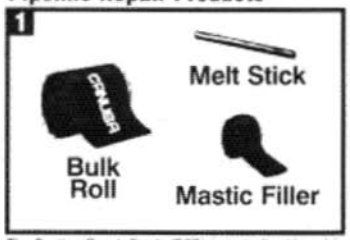


The Coating Repair Patch (CPR) is typically shipped in bulk rolls and field cut to size. Melt Sticks and Mastic Fillers are used to repair holidays or fill voids.

Storage & Safety Guidelines

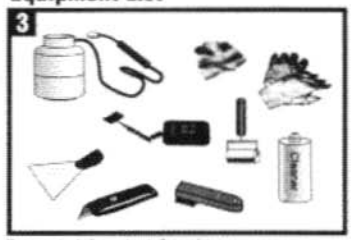
2

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.

Equipment List

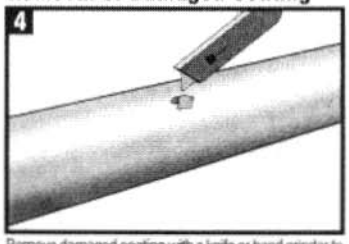
3



Propane tank, hose, torch & regulator.
Appropriate tools for surface abrasion and cleaning, including wire brush, abrasive paper, rags & approved cleaner.
Temperature measuring device. Misc. tools such as; knife, putty knife, roller, paint brush or paint roller, tape measure, and marker.
Standard safety equipment, gloves, goggles, hard hat, etc.

Removal of Damaged Coating

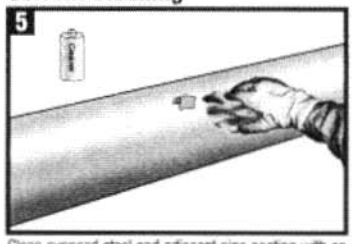
4



Remove damaged coating with a knife or hand grinder to prevent crack propagation in the coating.

Solvent Cleaning

5



Clean exposed steel and adjacent pipe coating with an approved cleaner (as per SSPC-SP-1) to remove the presence of oil, grease and other contaminants.

Surface Preparation

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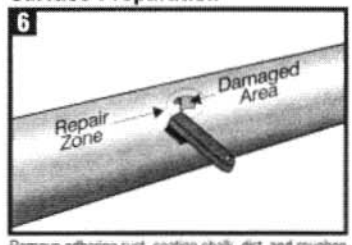
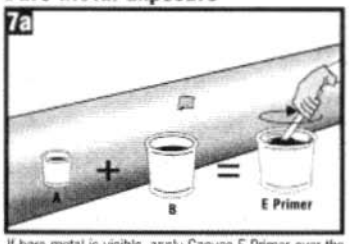


Remove adhering rust, coating chalk, dirt, and roughen the mill applied coating in the repair zone using an abrasive paper/cloth or wire brush.

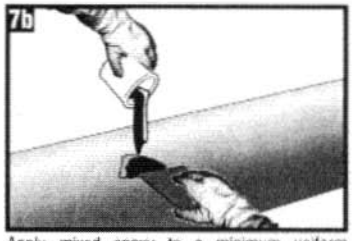
Bare Metal Exposure

7a



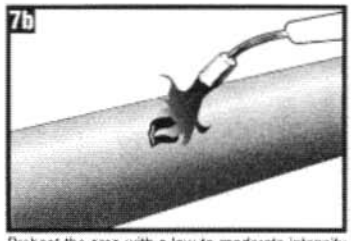
If bare metal is visible, apply Canusa E Primer over the defect. Refer to the E Primer Data Sheet.

7b



Apply mixed epoxy to a minimum uniform thickness of 4 mils on all exposed bare metal plus 10 mm (0.5") onto the adjacent pipe coating.

7b



Preheat the area with a low to moderate intensity flame to substantially cure the epoxy and warm the surface.

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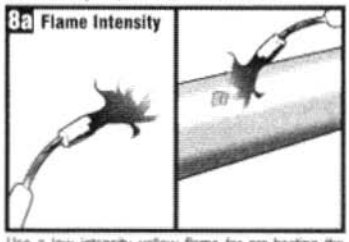
Melt Stick Application

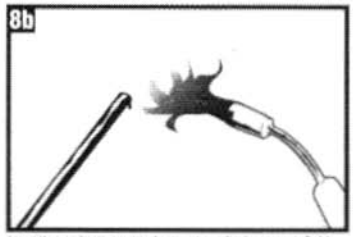
For Damage Up To 10mm x 10mm

8a Flame Intensity



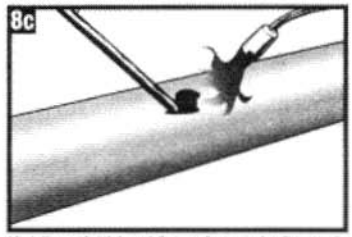
Use a low intensity yellow flame for pre-heating the coating and applying the repair products. With quick back and forth strokes, pre-heat the repair zone sufficiently to remove moisture and assist in adhesion.

8b

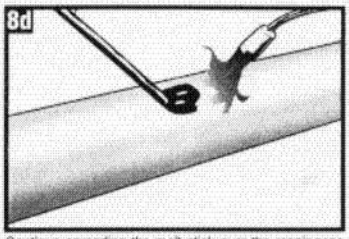


Heat the melt stick with the torch until it becomes fluid.

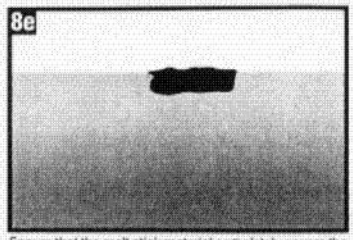
8c



Heat the melt stick and the repair zone simultaneously with the torch and spread the melt stick over the damaged area. Keep the flame moving to prevent damage to the coating. Some ignition of the melt stick is acceptable.

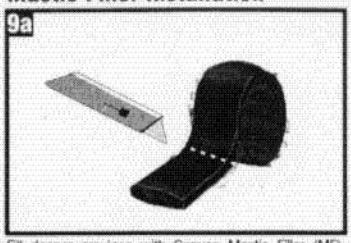


Continue spreading the melt stick over the repair zone until the entire area is covered. After sufficient melt stick material is on the surface, apply additional heat in quick back-and-forth strokes to create a smooth surface.

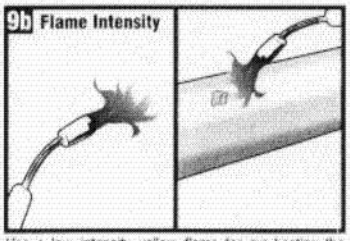


Ensure that the melt stick material completely covers the repair zone. The melt stick material should be spread liberally so that the material is raised above the coating surface.

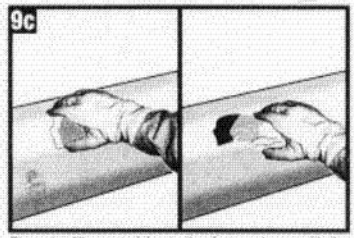
Mastic Filler Installation



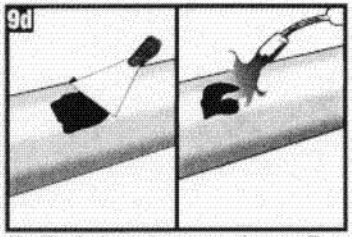
Fill deeper crevices with Canusa Mastic Filler (MF). Unroll the filler material and cut off the required amount, leaving the release paper in place.



Use a low intensity yellow flame for pre-heating the coating and applying the repair products. With quick back and forth strokes, pre-heat the repair zone sufficiently to remove moisture and assist in adhesion.

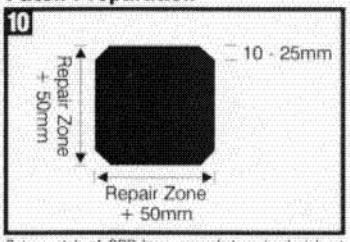


Place the filler material onto the damaged area with the release paper facing up. Firmly press the material into the damaged area by hand and remove the release paper.



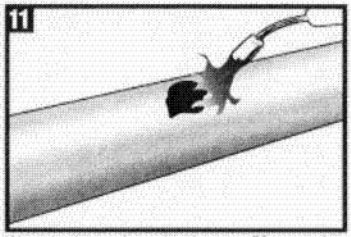
After filling the damaged area, remove the excess filler to create a smooth surface. As an option, use a low intensity yellow flame to warm the filler material and assist in smoothing it out.

Patch Preparation



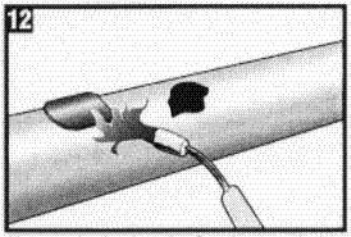
Cut a patch of CRP large enough to extend at least 50mm (2") beyond the edge of the repair zone. Trim each corner of the patch about 10-25mm (½" - 1") at a 45° angle.

Pre-Heat

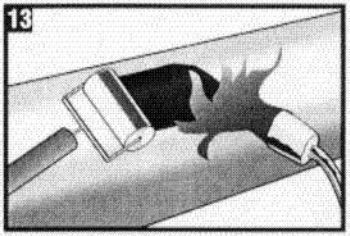


Warm the damaged area (repair zone + 50mm overlap) to remove moisture and assist in adhesion.

Patch Installation

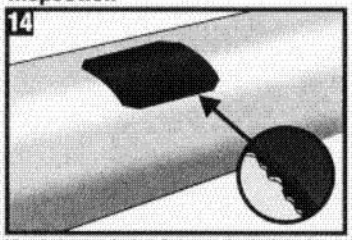


After removing the release liner from the cut patch, place the patch with the adhesive side up on a gloved hand, or on top of the pipe, and heat gently. Heat until the adhesive softens and the surface becomes glossy. Also, reheat the damaged area to keep it warm.



Apply the softened adhesive side of the patch to the damaged area and press down firmly. Heat the patch with a low intensity flame, and using a roller or a gloved hand, pat down and remove wrinkles. Roll to ensure good bond.

Inspection



Visually inspect the installed patch for the following: 1. Patch is in full contact with the pipe coating. 2. There are no loose edges. 3. A cool patch has adhesive flow on the edges. 4. The patch has fully conformed to the coating. 5. No cracks or holes in patch backing.

Backfilling Guidelines

15

After application, allow the repaired area to cool before backfilling. To prevent damage to the repaired material, use selected backfill material (no sharp stones or large particles).