

Field Repair of Polymer Coatings

The purpose of this Technical Bulletin is to define best practices for field repair of polymer laminated CSP and polymer coated SPCSP during construction or in-service.

Polymer coated corrugated steel shall be inspected and repaired during handling, installation and service. If specific care is not taken, the tough polymer barrier coating may be breached, exposing the underlying base coat. Extensive research over 40 years indicates damage to the polymer coating typically remains localized and does not expand significantly to contribute to accelerated deterioration of the pipe. Soil and atmospheric environments are typically less aggressive than abrasive water environments.

As outlined in CAN/CSA G401 and repeated in this document, all small, localized areas of damage where metal has been exposed shall be repaired as per this document. Factory saw-cuts (both square end and bevel end) shall be excluded on polymer laminated CSP. Uncoated surfaces of width greater than 50 mm require engineering judgment to determine whether this repair procedure is appropriate or if an alternative repair procedure is required.

Field repairs are best managed by applying over the damaged area Denso Butyl 35 Tape and, when appropriate, a zinc-rich compound complying with CAN/CGSB-1.181. Repairs may be conducted in all temperatures and the repairs outlined have been found to be effective in a variety of site conditions.

Denso Butyl 35 tape is available from CSPI manufacturers or from www.denso.com. Denso Butyl 35 Tape is readily available in rolls of 50 mm, 100 mm and 150 mm widths.



Denso North America Inc.
90 Ironside Crescent
Toronto, ON M1X 1M3
Bus: (416) 291-3435
Fax: (416) 291-0898

Denso Butyl 35 Tape application instructions are as follows:

New Installations

- Prepare surface in damaged area by making sure it is clean and dry.
- Cut tape to length required to cover damaged area.
- Remove interleaving.
- Press adhesive side of tape firmly over damaged area. Tape should extend beyond all sides of the damaged area by a minimum of ½" (12 mm). Due to its high adhesive properties, Denso Butyl 35 Tape does not require a Butyl Primer for repairs of damaged coating on new polymer coated steel.

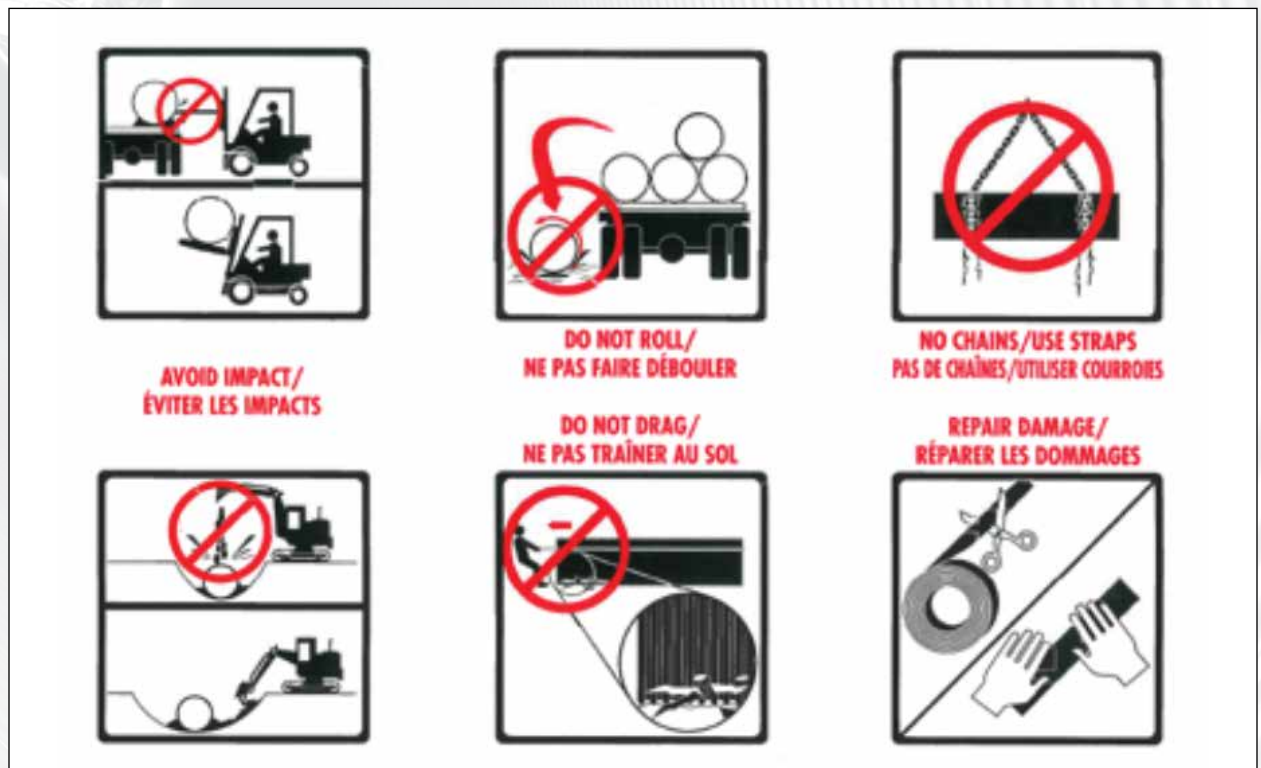
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Existing Installations

- Prepare surface in damaged area by removing any rust and roughening the polymer surface with an abrasive pad. Make sure the area is clean and dry.
- If zinc rich coating is damaged, thoroughly clean the damaged area and follow with application of the zinc-rich coating to a minimum dry thickness of 50 µm.
- Spray the repair area with Denso Butyl Spray Primer.
- Cut tape to length required to cover damaged area.
- Remove interleaving.
- Press adhesive side of tape firmly over damaged area. Tape should extend beyond all sides of the damaged area by a minimum of ½" (12 mm).

Please direct any concerns or inquiries to the CSPI manufacturer or to info@cspi.ca

Handling polymer coated steel / Manutention des TTOG à strates de polymère



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