

PREQUALIFICATION PROCEDURES AND ACCEPTANCE CRITERIA FOR CORROSION PROTECTION SYSTEMS FOR MECHANICAL BUTT SPLICES, BUTT SPLICES & WELDS ON EPOXY COATED REINFORCEMENT, AND CABLE-TYPE BRIDGE JOINT RESTRAINERS

Authorized Materials List covers corrosion protection systems that have been tested and are approved by the Materials Engineering and Testing Services, Corrosion Branch for use as corrosion protection coverings for mechanical butt splices, butt welds and lap welds on epoxy coated reinforcement. These systems are approved for use when applied in accordance with the manufacturer's recommendations, supplemental requirements of this document, and other applicable requirements of the Department's specifications. When there is a conflict between the manufacturer's recommendations and the requirements of the Department, the Department requirements shall govern.

Other systems will be considered for inclusion on this list subject to evaluation by the Corrosion Branch. To be placed on the list, manufacturers must submit samples to New Products (<http://www.dot.ca.gov/hq/esc/Translab/NewProducts/>). Products submitted should meet the following requirements:

A. Heat Shrinkable Sleeves

1. A thin walled continuous sleeve (tube) that cannot be cut and wrapped and must be able to withstand penetration from the abrasive work environment associated with concrete placement.
2. An outer flexible corrosion resistant heat shrinkable sleeve material that can be slid over couplers that range in size (see Authorized Materials List for Couplers) and heat treated to between 212°F and 250°F providing a water tight seal to the epoxy coated reinforcement steel on each side of the coupler where the sleeve terminates.
3. The sleeve shall consist of an inner liner coated with a thermoplastic polymer which when heated will flow out the ends of the sleeve forming a tight seal between the outer heat shrinkable wall and the epoxy coated steel reinforcement. The thermoplastic should fill in all interior gaps providing additional adhesion between the outer heat shrinkable sleeve material and the coupler/reinforcement steel so that no air gaps remain.

B. Heat Shrinkable Wraps

1. A thin walled heat shrinkable wrap (tape) applied with continuous tension and overlapping to ensure a good seal at all points on coupler and epoxy coated reinforcement steel to minimize voids.
2. The wrap shall consist of an outer layer of heat shrinkable, flexible, irradiated and cross linked low density polyethylene or stretchable and heat shrinkable polyolefin with an inner layer of heat sensitive polymer mastic combined in the form of a tape.
3. When wrap is heated between 212°F and 250°F the outer wall shall shrink forming a tight bond to both coupler and epoxy reinforcement. Applied heat shall cause the polymer mastic to flow forming an adhesive bond between the wrap and the coupler/epoxy coated reinforcement and filling in any voids.

PREQUALIFICATION PROCEDURES AND ACCEPTANCE CRITERIA FOR CORROSION PROTECTION SYSTEMS FOR MECHANICAL BUTT SPLICES, BUTT SPLICES & WELDS ON EPOXY COATED REINFORCEMENT, AND CABLE-TYPE BRIDGE JOINT RESTRAINERS

Authorization Expiration Date

Products placed on the list will remain on the list for a period of five years.

Product samples must be submitted to the following address for testing within sixty days of the expiration date, otherwise they will be removed from the list.

To remain on the list, the manufacturer must submit a digital infrared scan of the powder product from a certified Independent Laboratory.

Acceptance of the final product is, however, still subject to jobsite acceptance testing (in accordance with our Standard Specifications 52-2.01B).

Documentation required to maintain authorization on the AML include the following:

- A signed memo to the Department, stating/specifying modifications/revisions (if any) were made to the product since authorized by the Department. Revisions include but are not limited to material specifications, and manufacturing processes.

The Corrosion Branch is responsible for reviewing all prequalification test data performed by the Independent Testing Lab to ensure that a product meets the applicable specified patented test criteria. In addition, we review the results of physical and chemical tests conducted by the Structural Materials Testing Branch and the Chemical Testing Branch. We also respond back to the manufacturers to notify them of their product's status.

Corrosion Testing Lab
California Department of Transportation
5900 Folsom Blvd.
Sacramento, CA 95819

The Chemical Testing Branch performs the required testing of samples for both prequalification and jobsite acceptance tests. These tests ensure that the product used for Caltrans projects has not been altered from the original submittal. Samples should be submitted to the following address:

Chemistry Laboratory
California Department of Transportation
5900 Folsom Blvd. Rm 286
Sacramento, CA 95819

For more information, you may contact the Structural Materials Testing Branch at SMTL@dot.ca.gov