



## 5-30.1 Epoxy Paint System

The epoxy paint system consists of a prime coat of inorganic zinc-rich paint, an intermediate coat of high-build epoxy paint, and a protective coat of urethane paint. All three coats are applied in the shop. The approved proprietary coating systems will be shown in the contract special provisions; one must be selected by the contractor and ordered to be applied by the fabricator or associated painter.

In situations requiring field repair to the urethane topcoat, the contract special provisions will allow field application of a second urethane top coat to the exterior girder fascias and bottom exterior girder flange surfaces. All damaged areas must be repaired before applying the second urethane top coat. Adjoining concrete work including form removal must also have been completed before the recoating.

### 5-30.1.1 Preparation of Surfaces

Zinc coated bolts, nuts, washers, and bearings are to be painted in accordance with recommendations of the manufacturer of the selected epoxy coating system. The procedure must include removal of surface residue and application of a wash prime or tie coat before the application of the prime coat.

Non-zinc coated bolts, nuts, washers, and sharp steel plate edges are to be striped with inorganic zinc-rich primer by brush or sprayer before the complete prime coat is applied by sprayer. All steel plate surfaces must be prepared with a Number 10 blast (near white metal) and the three-coat epoxy system must be applied in accordance with the manufacturer's recommendations of [standard spec 517](#).

### 5-30.1.2 Field Repair of Epoxy System

Specifications for field repair of epoxy system are shown in [standard spec 517.3.1.8.2](#) and in the contract special provisions. Field repair must include removal of all damaged paint down to base steel by blast cleaning with sand, grit, or shot, and application of the complete 3-coat system in accordance with manufacturer's recommendations.

## 5-30.2 Sampling and Mixing Paints

Before any samples are taken, ready-mixed paint must be thoroughly mixed. Thorough mixing is not only necessary before sampling but also before each time the paint is used. Good painting practice also requires mixing the paint periodically while the painting is being done. Failure to mix properly is one of the principal reasons for paint troubles and paint failures.

According to [standard spec 517.2.3](#), the contractor is responsible for providing a representative sample by the thorough mixing of the paint; therefore, the contractor's personnel should do the mixing. For the size of sample and the frequency of sampling, refer to the Materials Testing and Acceptance Guide.

Structural steel painting will not be permitted until results of tests showing full compliance with applicable specifications are provided. Test results for field-applied paints must be for paints manufactured during the calendar year in which the paint is applied. If the contractor proposes to use paints manufactured in the previous calendar year, the batches must be re-sampled and tested and shown to be in full compliance with the specifications before application is permitted.

### 5-30.3 Handling of Coated Steel

Refer to [standard spec 517.3.1.7.4](#).

### 5-30.4 Disposal of Lead-Based Paint

Refer to [CMM 1-30](#).