

**KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, 2015 EDITION**

Delete SECTION 1808 and replace with the following:

SECTION 1808

CALCIUM SULFONATE ALKYD SYSTEM

1808.1 DESCRIPTION

This specification covers a calcium sulfonate alkyd paint system for use on structural steel including weathering steel. The system may also be used for encapsulation or overcoating.

1808.2 REQUIREMENTS

a. General.

(1) The coating system consists of 3 materials: rust penetrating sealer, spot primer, and topcoat. The sealer is for use on pack rusted steel associated with and around rockers, riveted flanges and joints. The spot primer is for use where the existing coating has been removed. The topcoat is for use over existing paint, penetrating sealer, and spot primer. The coating can be used over a variety of existing paints including but not limited to lead based paint, inorganic/organic zinc, epoxy, vinyl, and alkyd. Supply each coating as a single component material. All coatings must be well ground, free of caking, skins, gelation, and excessive settling with a shelf life of not less than 12 months. Provide pigmentation that contains no toxic heavy metals. Comply with the EPA Federal Register 40 CFR, Part 59, Subpart D, Table 1 for industrial maintenance coatings concerning VOC content.

(2) The manufacturer is responsible for the formulation. Once established, no change in the formulation is permitted without prior notification to and approval of the KDOT.

b. Vehicle: Use a modified overbased calcium sulfonate alkyd resin.

c. Rust Penetrating Sealer:

- Total solids, % by weight 40 minimum

d. Spot Primer:

- Total solids, % by weight 70 minimum

e. Topcoat:

- Total solids, % by weight 70 minimum

f. Paint System,

- Cyclic Corrosion/UV Exposure Test, 15 cycles (one cycle = 2 weeks; one week of UV exposure and one week in the Cyclic Corrosion Tester.):
 - Scribe Corrosion 7 minimum
 - Unscribed Area 9 minimum

1808.3 TEST METHODS

a. Total Solids ASTM D 1644, except
heat the sample for 72
hours at 100°F.

b. Cyclic Corrosion/UV Exposure ASTM D 5894

- Scribe Corrosion ASTM D 1654

- Unscribed Area ASTM D 1654

1808.4 PREQUALIFICATION

a. Prequalification of the calcium sulfonate paint system is required. Manufacturers desiring prequalification should submit a 1-pint sample of each component to the Engineer of Tests. Manufacturers will be notified of results when testing is complete. The Bureau of Construction and Materials will maintain a list of prequalified materials.

b. Testing by KDOT may be waived if testing has been performed on the identical product by another state within the past 12 months. Results must satisfy the requirements contained within this specification. Forward a copy of the test report to the Engineer of Tests for evaluation, along with evidence that the product referenced in the test report is identical to that submitted for prequalification.

c. All applicable liquid components will be fingerprinted using infrared spectroscopy for use in screening future verification samples to verify that materials submitted for use are of an identical formulation as originally approved.

1808.5 BASIS OF ACCEPTANCE

Prequalification as required by **subsection 1808.4**.

Receipt and approval of a Type C certification as specified in **DIVISION 2600**.

Visual observation of performance on the project.

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Oct-17 Letting