



CALCIUM SULFONATE/ALKYD TOPCOAT MGS-02-01C

**1.0 DESCRIPTION.** This specification covers various colors of low gloss Calcium Sulfonate/Alkyd Topcoat for use over a Calcium Sulfonate/Alkyd Primer or over properly prepared previously painted surfaces.

**1.1** This paint is intended for brush, roller or spray application (although spray is preferred) over rust inhibiting primer paints, over itself or over other oleoresinous paints (always confirm compatibility/adhesion). This paint is primarily intended as a topcoat for a Calcium Sulfonate/Alkyd Corrosion Inhibitive Primer, and is to be applied in accordance with SSPC-PA 1 Shop, Field, and Maintenance Painting. It is suitable as maintenance or repaint coating for in-place structures and not as a shop-applied finish.

**2.0 REFERENCE STANDARDS.**

**2.1 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)**

**2.1.1** Test Methods for Properties:

- D562 Consistency of Paints Using the Stormer Viscometer
- D1210 Fineness of Dispersion of Pigment - Vehicle Systems
- D3960 Volatile Organic Content (VOC) of Paints
- B117 Salt Spray (Fog) Testing
- G154 Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials

**2.2 Federal Standards.**

**2.2.1** Federal Test Method Standard No. 141:

- Method 4061 Drying Time
- Method 4203 Reducibility and Dilution Stability
- Method 4494 Sag Test (multi-notch blade)

**3.0** The rust inhibitive resin used in the manufacture shall be an overbased crystalline calcium sulfonate. In addition to the calcium sulfonate complex, the paint shall also contain film forming oleoresinous compounds that act to reduce tack in the dry film.

**4.0 PROPERTIES.**

**4.1 Mixed Paint:**

	<b>Brown</b>	<b>Gray</b>	<b>Tan</b>	<b>Green</b>
Color, Federal Standard 595b	30045	26373	23522	24260
Overbased Crystalline Calcium Sulfonate, percent by weight, min.	15			
Coarse Particles and Skins as retained on No. 325 (45 µm) mesh sieve, percent, max.	1.0			
Viscosity, 77 F (25 C), KU	90 - 130			

Fineness of grind, Hegman Units, min.	5
Drying Time, 2-3 mils (50-75 µm), hours	
Dust Dry	1 - 4
Tack Free	5 - 12
Dry Hard	24 - 48
Volatile Organic Content, lbs/gal (kg/L), max.	3.5 (0.42)
Sag Resistance, Mils (µm)	12+ (300+)
QUV Weathering Resistance, 1000 hrs. (4 mil (100 µm) dry film over SSP- SP-5 blasted cold rolled steel - 1-2 mil (25-50 µm profile)	No excessive chalking, blistering, or change in color.
Salt Spray Resistance, 1000 hrs (4 mil (100 µm) dry film over SSP- SP-5 blasted cold rolled steel - 1-2 mil (25-50 µm profile)	No more than 1 percent rust under-cutting, blistering or peeling.

**4.2 Compatibility.** There shall be no evidence of incompatibility of any of the ingredients of the paint when two (2) volumes of paint are mixed with one (1) volume of mineral spirits (Federal Standards No.141, Method 4203).

**4.3 Working Properties.** The paint shall be easily applied by spray when tested in accordance with Federal Standard No.141, Method 4331. Brush and roller application shall be limited to touch up of small areas, but may be employed on larger areas when spraying is not possible or practical. Spray application is always preferred.

**5.0 LABELING.** Each container shall be legibly marked with the following information:

- Name: Calcium Sulfonate/Alkyd Paint;
- Specification;
- Color: [ \* ]
- Lot Number;
- Date of Manufacture;
- Quantity of Paint in Container;
- Information and Warnings as may be required by Federal and State Laws;
- Manufacturer's Name and Address.

[ \* ] – Color and Federal Standard 595b color number.

**6.0 BRAND NAME QUALIFICATION.** No bids will be accepted if the manufacturer, brand name, and color of the calcium sulfonate topcoat has not been added to the qualified list. Inclusion on the qualified list may be based on documentation review, satisfactory test results, satisfactory field trial results, and compliance with this specification.

**6.1** A list of qualified brands and colors is maintained in [FS-1045, Table 10](#) of the Materials Manual. To be considered for qualification, the manufacturer shall submit to Construction and Materials, PO Box 270, Jefferson City, MO 65102, a one-gallon (four-liter) sample of each color for which approval is requested. All samples shall be accompanied by

a copy of the manufacturer's data sheet, handling and use instructions, a material safety data sheet, and test results for the actual sample of coating material supplied as a qualification sample showing compliance with all requirements of this specification. Submittals that do not have all required documentation will not be considered.

## **7.0 INSPECTION.**

**7.1** All material supplied under this specification shall be subject to timely inspection by the department or authorized representative. The department shall have the right to reject any materials supplied that are not in accordance with the requirements of this specification.

## **8.0 ACCEPTANCE.**

**8.1** Acceptance of calcium sulfonate/alkyd topcoat will be based on certification by the supplier that the paint supplied is in accordance with all requirements of this specification, the coating's status on the qualified list, and on the results of any tests deemed necessary by the purchaser.