

## 2215 - PAVEMENT MARKING PAINT

### SECTION 2215

#### PAVEMENT MARKING PAINT

##### 2215.1 DESCRIPTION

This specification covers water-borne pavement marking paint and glass beads suitable for use as retroreflective pavement markings on portland cement concrete or asphalt pavement.

##### 2215.2 REQUIREMENTS

**a. Paint.** Use white or yellow paint that is specifically manufactured for use as pavement markings. Formulate the paint to consist of acrylic resin, lead free pigments and water as the solvent. The paint must comply with volatile organic compound (VOC) requirements, be lead and other toxic heavy metal free, and exhibit the following qualities:

(1) Formulation:

Yellow paint- The pigment of the Yellow paint shall consist of the following for each 100 gallons of paint:

- A. 30 lbs. of approved Hansa Yellow
- B. 17 lbs. of Rutile Titanium Dioxide
- C. Other such extender pigments as necessary to produce a close match to the yellow color requirement.

White and yellow paint shall be composed of 100% acrylic polymer, which shall be Rohm and Haas HD-21 acrylic resin or Dow Chemical's DT400.

(2) Dry-Opacity: A contrast ratio of not less than 0.96 when the paint is applied with a 0.012 inch film applicator.

(3) Daylight Reflectance: Daylight Reflectance of the white paint not less than 80% relative to magnesium oxide.

(4) Color: Provide paint that meets the requirements of ASTM D 6628.

(5) Bead Embedment: At least 90% of the glass beads must be embedded between 50 and 70%.

(6) Dry to No Pick-Up Time: Maximum 5 minutes when tested according to KT-MR1

**b. Glass Beads for Pavement Marking Paint (Double Drop System).** Provide glass beads according to the paint manufacturer's recommendations.

##### 2215.3 TEST METHODS

###### **a. Paint.**

(1) Dry Opacity. ASTM D 2805.

(2) Daylight Reflectance. ASTM E 1347.

(3) Bead Embedment. Apply paint to a Leneta plain white paper chart at a wet film thickness of 0.025 inch followed immediately by an application of glass beads (AASHTO M 247, Type 3) dropped onto the surface of the paint. After drying for at least 24 hours observe the amount of bead embedment with a 30-power microscope.

(4) No Pick-Up Time. ASTM D 711.

##### 2215.4 PREQUALIFICATION

None Required.

##### 2215.5 BASIS OF ACCEPTANCE

Acceptance of pavement marking paint and glass beads will be made on the basis of Type D certifications as specified in **DIVISION 2600**, copies of testing results for each lot of beads used on the project, and visual inspection of performance and consistency on the job site.