
Standard Specification for Waterborne White and Yellow Traffic Paints

AASHTO Designation: M 348-22¹

Adopted with Revisions: 2022

Technical Subcommittee: 4c, Markings and Coatings



**American Association of State Highway and Transportation Officials
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1. SCOPE

- 1.1. This specification covers fast-drying waterborne traffic line paints for use on asphalt and cement concrete pavements. Waterborne traffic lines applied to roadways shall be installed using glass spheres or other optics by gravity or pressurized equipment for enhanced retroreflectivity and color during daytime and nighttime conditions.
- 1.2. *This standard practice may involve hazardous materials, operations, and equipment. It does not purport to address all safety problems associated with its use. It is the responsibility of the user of this standard practice to establish the appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*
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2. REFERENCED DOCUMENTS

- 2.1. *AASHTO Standard:*
- < M 339M/M 339, Thermometers Used in the Testing of Construction Materials
- 2.2. *ASTM Standards:*
- < D562, Standard Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer
 - < D713, Standard Practice for Conducting Road Service Tests on Fluid Traffic Marking Materials
 - < D869, Standard Test Method for Evaluating Degree of Settling of Paint
 - < D1475, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products
 - < D2369, Standard Test Method for Volatile Content of Coatings
 - < D2805, Standard Test Method for Hiding Power of Paints by Reflectometry
 - < D3723, Standard Test Method for Pigment Content of Water-Emulsion Paints by Low-Temperature Ashing
 - < D7539, Standard Practice for Using a Test Chamber for Humidity Conditioning of Test Panels of Pavement Marking Paints
 - < E1, Standard Specification for ASTM Liquid-in-Glass Thermometers
 - < E313, Standard Practice for Calculating Yellowness and Whiteness Indices from Instrumentally Measured Color Coordinates
 - < E879, Standard Specification for Thermistor Sensors for General Purpose and Laboratory Temperature Measurements
 - < E1137/E1137M, Standard Specification for Industrial Platinum Resistance Thermometers
 - < E1349, Standard Test Method for Reflectance Factor and Color by Spectrophotometry Using Bidirectional (45°:0° or 0°:45°) Geometry

- E1710, Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retroreflectometer

2.3. *Code of Federal Regulations:*

- 40 CFR 261.24

2.4. *International Electrotechnical Commission Standard:*

- IEC 60751: 2008 Industrial Platinum Resistance Thermometers and Platinum Temperature Sensors

3. **PRODUCT REQUIREMENTS**

- 3.1. *General*—Traffic paint shall consist of a ready-mixed pigmented binder in a one-package system. Traffic paint shall be suitable for application on both asphalt concrete and cement concrete pavements at a wet film thickness of 15 mils (0.015 in.).
- 3.2. *Pigments*—Suppliers may use any pigment, provided it does not contain any of the metals listed in the Environmental Protection Agency Code of Federal Regulation 40, Section 261.24, in excess of the allowed maximum limits.
- 3.3. *Composition*—The manufacturer may use any combination of ingredients, provided the finished paint satisfies the requirements herein. Sufficient quantities of dispersing, suspending, and anti-skinning agents shall be used to ensure proper manufacture and stability in containers during storage.
- 3.4. *NTPEP Evaluation*—If specified by the purchasing agency, the supplier shall submit products to the AASHTO National Product Evaluation Program (NTPEP) Pavement Marking Program for field evaluation and laboratory analysis of products.
- 3.5. *Paint Requirements*—The paint shall meet the requirements specified in Table 1.