#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Transportation Laboratory 5900 Folsom Blvd. Sacramento, California 95819-4612



# METHOD OF TEST FOR THERMOPLASTIC TRAFFIC LINE MATERIAL

#### A. SCOPE

This test method describes the procedure for testing Thermoplastic Traffic Striping Materials. This test method will be used in conjunction with California State Specification PTH-02 Alkyd and PTH-02 Spray.

#### B. REFERENCES

AASHTO T 250-05 (	(2019)	Standard	Method of	Test for The	ermoplastic Traffic

Line Material

ASTM D4796-17 Standard Test Method for Thermoplastic

Pavement Marking Materials

ASTM D8162-20a Standard Test Method for Determination of the

Apparent Viscosity of Thermoplastic Pavement Marking Materials using a Rotational Viscometer

with Temperature Control Heating Unit

ASTM D7735-17 Standard Test Method for Type A Durometer

Hardness Testing of Thermoplastic Pavement

Marking at Elevated Temperatures

PTH-02 Alkyd (April 2020) California Department of Transportation

Specification for Thermoplastic Traffic Striping Material, Alkyd Resin Binder, White, and Lead-

Free Yellow

PTH-02 Spray (April 2020) California Department of Transportation

Specification for Sprayable Thermoplastic Traffic Striping Material, White and Lead-Free Yellow

### C. PROCEDURE

- 1. Conduct the test in accordance with AASHTO T 250-05 (2019) except for the following:
  - a. In section 4.3.2

Remove the last sentence and replace with:

Continue to mix and heat until the temperature reaches the specified temperature, and the sample is homogenous. Maintain the specified temperature for 4 hours.

- i. PTH-02 ALKYD, specified temperature 425°F (218°C)
- ii. PTH-02 SPRAY, specified temperature 375°F (190.5°C)
- b. In ASTM D4796-17 when testing PTH-02 SPRAY:
  - i. Use a hot draw down bar with a thickness of 60 mils
- c. Conduct Hardness test in accordance with ASTM D7735-17
- 2. Conduct Viscosity in PTH-02 Alkyd and PTH-02 Spray in accordance with ASTM D8162-20a.

## D. HEALTH AND SAFETY

It is the responsibility of the user of this test method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. Prior to handling, testing or disposing of any materials, testers must be knowledgeable about safe laboratory practices, hazards and exposure, chemical procurement and storage, and personal protective apparel and equipment.

Refer to the Safety Manual for your Laboratory.

End of Text
(California Test 423 contains 2 pages)