DEPARTMENT OF TRANSPORTATION
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METHOD OF TEST FOR DETERMINING THE PERCENT OF RESIDUE OF EMULSIFIED ASPHALT REJUVENATING AGENTS

CAUTION: Prior to handling test materials, performing equipment setups, and/or conducting this method, testers are required to read "**SAFETY AND HEALTH**" in Section E of this method. It is the responsibility of the user of this method to consult and use departmental safety and health practices and determine the applicability of regulatory limitations before any testing is performed.

A. SCOPE

The procedure for determining the percent of residue of an emulsified asphalt rejuvenating agent by means of evaporation is described in this test method, which is a modification of AASHTO T-59.

B. APPARATUS

1. Hot plate, vibrating, capable of maintaining a temperature of 150 ± 5.5˚C.

2. Containers, metal, approximately 87 mm diameter by 60 mm in height (commonly known as 12 oz. seamless ointment tins.)

3. Balance, accuracy ± 0.1 g.

4. Tongs, metal.

C. PROCEDURE

1. Weigh 25 ± 0.1 g of the thoroughly stirred or agitated sample into each of three pre-weighed containers (see B.2). Place these with sample upon the vibrating hot plate that has been adjusted to 150 ± 5.5˚C.

2. Perform the evaporation by swirling the containers frequently whenever foaming or bubbling becomes prevalent. Do not leave the evaporation unattended for more than a few seconds. Continue the evaporation until all foaming and bubbling have ceased. Remove from heat.

NOTE: Approximately 20 to 30 min. is required for an evaporation test.

3. After the residue has cooled to room temperature, weigh to nearest 0.1 g.

4. Reheat and combine the residue into one container, stir and pour the residue for desired testing. Retain the unused sample for further tests.

D. CALCULATIONS AND REPORT

1. Calculate the percent of residue for each container as follows:

Residue, percent = [(A — B)/C] X 100

Where:

A = mass of container + residue

B = mass of container

C = mass of sample

2. Report the average results of the three containers as the percent of residue of emulsified asphalt rejuvenating agent.

E. SAFETY AND HEALTH

Care should be exercised in regards to eye and skin protection, as there is a possibility of splattering.

Prior to handling, testing or disposing of any waste materials, testers are required to read: Part A (Section 5.0), Part B (Sections: 5.0, 6.0 and 10.0) and Part C (Section 1.0) of Caltrans Laboratory Safety Manual. Users of this method do so at their own risk.

REFERENCES:
AASHTO Designation T-59

End of Text (California Test 351 contains 2 Pages)