

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 Transportation Laboratory
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METHOD OF TEST FOR DETERMINING THE PERCENT OF RESIDUE OF EMULSIFIED ASPHALT REJUVENATING AGENTS

CT 351 has been withdrawn (Feb. 2024). It is no longer maintained by Caltrans.

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. REFERENCES

AASHTO T-59 Standard Method of Test for Emulsified Asphalts

C. APPARATUS

1. Hot plate, vibrating, capable of maintaining a temperature of $150 \pm 5.5^{\circ}\text{C}$.
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.

D. PROCEDURE

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

E. CALCULATIONS

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

$$\text{Residue, percent} = \left[\frac{A - B}{C} \right] \times 100$$

Where: A = mass of container + residue

B = mass of container

C = mass of sample

F. REPORTING OF RESULTS

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

G. 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.

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.

Refer to the Safety Manual for your Laboratory.

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(California Test 351 contains 2 pages)