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DIVISION OF ENGINEERING SERVICES
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**METHOD OF TEST FOR SAMPLING AND REHEATING ASPHALT RUBBER BINDER
FIELD SAMPLES PRIOR TO VISCOSITY TESTING IN ACCORDANCE TO ASTM D
7741**

A. SCOPE

This test method describes the procedure for sampling and reheating protocol for asphalt rubber prior to viscosity testing in the laboratory.

B. REFERENCES

ASTM D 7741-Standard Test method for Measurement of Apparent Viscosity of Asphalt-Rubber or other Asphalt Binders by Using a rotational Hand held Viscometer

CT 125-Methods of Test for Sampling Highway Materials and Products used in the Roadway Structural Sections

C. APPARATUS

1. Calibrated thermocouple or calibrated glass thermometer.
2. Forced-draft air oven.
3. Controllable heat source, such as a hot plate, to maintain the temperature of the asphalt rubber sample.
4. Stirring device such as a metal stir rod or steel spatula.
5. A 1-gallon friction top metal can.
6. Five 1-quart metal cans.

D. SAMPLES

1. Sample the asphalt rubber binder in accordance to CT 125 Appendix D: Bituminous Material except the samples must be placed in five 1-quart metal cans.
2. Allow the asphalt rubber binder sample to cool. Do not apply any reheating to the sample until it is ready for viscosity testing in the laboratory.

E. PROCEDURE

1. Pre-heat forced-air draft oven to $395\text{ }^{\circ}\text{F} \pm 5\text{ }^{\circ}\text{F}$.
2. Place all five 1-quart metal cans of asphalt rubber binder and the empty one gallon metal can in the forced-draft air oven.
3. Leave the samples in the oven for 45 minutes.

4. Remove one sample from the oven at a time, and place on controlled heat source such as a hot plate.
5. Use stirring device to mix the sample to ensure homogeneity.
6. Check temperature.
7. Repeat step 4 through 6 every 30 to 45 minutes until all samples are between 375 ± 5 °F and 385 ± 5 °F.
8. Once reaching required temperature, stir each sample for homogeneity and pour into pre-heated 1 gallon can. Repeat for each quart can. Fill gallon can to within 1 inch from top. Complete transfer within 10 minutes ± 1 minute.
9. Stir sample for homogeneity and check temperature. If sample is at 375 ± 5 °F, proceed to next step. If not, place sample back in oven until sample reaches required temperature.
10. Once reaching the required temperature, stir sample to ensure homogeneity as the sample cools to 375 ± 5 °F. Perform the viscosity test in accordance to ASTM D7741.
11. After the viscosity test, the sample may be split into sample containers for the other tests.

NOTE: The asphalt rubber binder samples will not be raised to a temperature above 400 °F nor will the samples be maintained at a temperature above 385 °. The original field sample must not be reheated more than twice for additional testing (if required).

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.

Caltrans Laboratory Safety Manual is available at:

http://www.dot.ca.gov/hq/esc/ctms/pdf/lab_safety_manual.pdf

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(California Test 388 contains 2 pages)