Method of Determining the Effectiveness of Anti-Stripping Additives in Asphalt Mixtures
Designation: SC-T-69 (08-18)

1. SCOPE

This test method outlines the procedure for evaluating the effectiveness of anti-stripping additives in asphalt hot-mixtures.

2. REFERENCE DOCUMENTS

2.1 None

3. APPARATUS

3.1 1000 ml stainless steel beaker and potable water
3.2 Stainless steel mesh to fit the bottom of the 1000 ml beaker
3.3 Stainless steel rod 8 inches in length
3.4 Scales (2 k or larger), +/- 0.1 gram accuracy
3.5 Gas Bunson Burner
3.6 Tripod Stand
3.7 Metal plate 6" x 6" (1/8" to 1/4" in thickness)
3.8 Aluminum foil or lab release paper
3.9 Paper towels

4. TEST SPECIMENS

4.1 Asphalt mixture that will be used in the test.

5. PROCEDURE

5.1 Obtain a representative sample of the material to be tested. Sample size should be approximately 300 grams.

5.2 Transfer the mixture to aluminum foil or lab release paper and allow the sample to cool to room temperature.

5.3 Heat a 1000 ml stainless steel beaker, one-half full with water, until it boils. Place a stainless steel mesh approximately 1/2 inch from the bottom of the beaker. Spacers will be required on the bottom of the mesh.

5.4 Add the asphalt mixture to the boiling water. Apply heat at a rate that enables the water to re-boil in not less than 2 or more than 3 minutes.

5.5 Maintain the water at a medium boil for 10 minutes, stirring with a stainless steel rod 3 times (at intervals of 2.5, 5 and 7.5 minutes) for 60 seconds each time. In addition, during boiling dip a paper towel into the beaker to skim any stripped asphalt binder residue from the surface of the water.
5.6 Drain water from the beaker and empty the wet mix onto a paper towel and allow to air dry.

5.7 Examine the dried mix carefully to determine if any of the aggregate has lost its coating of asphalt binder. The allowable stripping of asphalt mixes shall not exceed 20% by comparing the test sample to some of the same mixture that was not subjected to the boil test. Uncoated aggregate (coarse or fine) is an indication that the anti-stripping additive is not effective.

6. **CALCULATIONS**

6.1 None

7. **REPORT**

7.1 Record percent visual stripping to the nearest percent.