

T 59 MODIFIED
**METHOD OF TEST FOR
COMPATIBILITY OF AN ASPHALT EMULSION
AND A JOB AGGREGATE**

- I. **SCOPE.** This test method covers procedures for determining the ability of an asphalt emulsion to coat the job aggregate and the water resistance of the emulsion-coated aggregate.
- II. **APPARATUS.** The apparatus shall consist of the following:
 - A. **Balance.** A balance conforming to the requirements of AASHTO M 231, Class G2.
 - B. **Pans.** 2 one quart (1 liter) pans with a flat bottom having an inside diameter of approximately 6.5inches (165 mm) and an inside diameter of approximately 7.5inches (190 mm) at the top.
 - C. **Container.** 1 Quart (1 liter) capacity.
 - D. **Spatula.**
- III. **SAMPLES.** Representative samples of the job aggregate and the asphalt emulsion are required.
- IV. **PROCEDURE.** The percent asphalt emulsion and percent moisture content are based on the dry aggregate weight. The aggregates shall be stored in sealed containers to preserve their moisture content as received.
 - A. Determine the moisture content of the aggregate. Discard the sample used for moisture content determination.
 - B. If the moisture content of the aggregate is less than one-half of the recommended percent moisture content for mixing as specified by the mix design, add water to bring the moisture content of the aggregate up to a minimum of one-half of the recommended percent moisture content for mixing. Then store the aggregate in a sealed container and allow to season a minimum of 15 hours prior to testing.
 - C. Weigh sufficient moist aggregate into a tared pan to yield 500 ± 1 grams of dry aggregate.
 - D. Add water to bring the aggregate to the recommended percent moisture content for mixing as specified by the mix design. Mix with spatula.
 - E. Add the recommended percent of asphalt emulsions as specified by the mix design and mix with spatula until the aggregate is well coated or for a maximum of 5 minutes whichever comes first.
 - F. Observe whether the aggregate is fully coated with the emulsion and rate the coating as good, fair or poor. A rating of good means fully coated by the asphalt emulsion; a rating of fair applies to the condition of an excess of coated area over uncoated area; and a rating of poor applies to a condition of an excess of uncoated area over coated area.

- G. Spread the emulsion coated aggregate evenly in the pan and allow to cure for one hour at room temperature.
 - H. Add 1 Quart (1 liter) of water to the pan.
 - I. Decant the water from the pan.
 - J. Repeat Steps H and I four (4) more times.
 - K. Rate the coating retention as good, fair, or poor, based on the criteria in Step E.
- V. **REPORT.** Report the coating ability as good, fair or poor and the coating retention as good, fair or poor.