

MATERIALS

1. 2000 g Bitumen - Bitumen shall conform to the requirements of the project special provisions for asphalt binder.
2. Water - Water will be potable.
3. Air Source.

PROCEDURES

1. Calibrate foaming equipment in accordance with manufacture's recommendation.
2. Each test shall consist of heating a minimum 2000 g sample of bitumen to a temperature specified by the hot mix producer, and foaming two 500 g specimens at both the high and low end of the water injection rate recommended by the equipment manufacturer.
 - a. Maintain the required bitumen temperature for at least 5 min prior to testing.
 - b. Discharge 500 g of foamed bitumen into a preheated 140°F (\pm 60°C) steel drum at the required water content. Immediately after the foam discharge begins, start a stopwatch.
 - c. Using a ruler, measure the maximum height the foamed bitumen achieves in the drum.
 - d. Record the measurement as the maximum volume.
3. Using a stopwatch, measure the time in seconds the foam takes to dissipate to half of its maximum volume.
 - a. Record the time as the foamed bitumen's half-life.
4. Repeat the above procedure for each water content.
5. Report the half-life and expansion as the average of the two results for each water content.

SAFETY

This laboratory procedure may involve hazardous materials, operations, and equipment. This laboratory procedure does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this procedure to establish and use appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.