

HOT MIX ASPHALT (HMA) IN-HOUSE CALIBRATION PROCEDURE # 5
WATER BATHS

INSPECTION OF WATER BATHS

1. SCOPE

- 1.1 Use this procedure to verify the temperature settings of water baths. [TxDOT test procedure](#), Tex-202-F, requires a constant temperature water bath.
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2. APPARATUS

- 2.1 *Mercury Thermometer*, marked in 2°F (1°C) divisions or less, capable of measuring the temperature specified in the procedure.
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3. PROCEDURE

- 3.1 Turn on the water bath.
- 3.2 Set the water bath to the desired setting for the temperature that is needed.
- 3.3 When the desired temperature is achieved by the setting on the water bath, place a calibrated thermometer in the center of the water bath. The thermometer should be about a ½" to 1" off the bottom while laying flat.
- 3.4 Allow the thermometer reading to stabilize, than check the temperature of the thermometer.
- 3.5 If the reading of the water bath is $\pm 3^{\circ}\text{F}$ of the calibrated thermometer, than it is within tolerance.
- 3.6 If the reading of the water bath is more than $\pm 3^{\circ}\text{F}$, then adjust the water bath setting to a point at which the desired reading is achieved on the calibrated thermometer.