

**ASPHALT IN-HOUSE CALIBRATION PROCEDURE # 19
BENDING BEAM RHEOMETER (BBR)**

EQUIPMENT CHECKED: BENDING BEAM RHEOMETER (BBR) (AASHTO T 313)

1. SCOPE

1.1 This procedure gives instructions for checking equipment used to perform the BBR test.

2. APPARATUS

Inspection Equipment Required:

1. Thermometer, calibrated and readable at -62°C
2. Caliper
3. Carbon strip ID
4. Analytical balance

Tolerance:

Equipment shall meet the tolerances specified in test method AASHTO T 313.

3. PROCEDURE

- 3.1 Remove the confidence beam and non-complaint beam from the ethanol bath.
- 3.2 Let them reach room temperature and proceed to verify dimensions with the caliper.
- 3.3 Record the thickness, width and length of the beams on verification form.
- 3.4 Locate the step disk and open it with an Allen wrench. Remove the steel balls from the step disk and verify their dimensions. There should be five of them. Return the steel balls to their original position. Record all this information on the verification form.
- 3.5 Locate the masses and verify their weight. The four masses should have a final weight of 200 g +/- 0.2. Each mass should weight 50g. Record this information on the verification form.
- 3.6 Loading shaft verification should be done every six months.
- 3.7 Cut a strip of white paper and carbon paper 25 mm each in length and slightly narrower than the beam, and place the white paper on the compliance beam.
- 3.8 Remove the frame from the bath.
- 3.9 Place the beam in the supports.
- 3.10 Place the carbon paper on top of the white paper.
- 3.11 Push the shaft into the carbon paper enough to make an imprint. Turn the frame and do it again. Measure the difference between the two readings. If the difference is less than 1.0 mm the verification is ok. If not, contact the manufacturer for recalibration.