PROCEDURES FOR VERIFYING CRITICAL DIMENSIONS OF PLASTIC SINGLE USE MOLDS AASHTO M 205

A. PURPOSE

The following procedures are meant to provide instruction for the verification of critical dimensions of plastic single use molds used in the preparation of cylindrical concrete test specimens.

B. APPARATUS REQUIRED

1. Ruler or metal tape 18 inches (450 mm) minimum length, readable to 0.0526 inch (1.588 mm).
2. 1 ft. x 1 ft. x .5 in. (300 mm x 300 mm 12.5 mm) glass plate.
3. Sufficient amount of water at room temperature.

C. PROCEDURE

1. Measure inside height of the mold.
2. Measure inside diameter of the mold.
3. Divide the height by the diameter.
4. Place the mold on a flat level surface.
5. Place the glass on top of the mold.
6. Measure from the bottom of the glass to the flat level surface. Do this on all four sides of the glass.
7. Remove the glass and fill the mold with No. 57 stone in three equal layers. Rod each layer 25 times.
8. Empty the stone from the mold and check the mold for physical damage.
9. Wipe the mold with soft, dry cloth before placing it on a flat, level surface.
10. Fill the mold with water at room temperature to a level 1 inch (25 mm) below the top of the mold.
11. Allow the filled mold to stand for three (3) hours.
12. Measure down to the level of the water in the mold.

D. TOLERANCE

All molds shall meet the tolerances specified in AASHTO M 205.

EQUIPMENT VERIFICATION RECORD

Verified By: _____ Date: _____

Equipment: Single Use Plastic Cylinder Molds Location (Lab): _____

Identification No.: _____ Verification Frequency: As required

Previous Verification Date: _____ Next Due Date: _____

Verification Equipment Used: Ruler or metal tape (minimum length of 18 in. [450 mm] and readable to 1/16 in. [.06 mm]); 1' X 1' X .5" (300 mm x 300 mm x 12.5 mm) glass plate; sufficient water for test at room temperature

Verification Procedure: (In-house) OMR-CVP-23 / AASHTO M 205-90

M 205-90 3.1.2

Inside Height of Mold _____ in./mm

Inside Diameter of Mold _____ in./mm

Ratio of Diameter to Height _____ in./mm

Is inside height within ± 2% of 12 in. (305 mm)? _____

Is inside height within ± 1% of 6 in. (152 mm)? _____

Distance form bottom of glass to surface:

N _____in./mm E _____in./mm

S _____in/mm W _____in./mm

Does any measurement differ from other measurement by 1/8 in. (.125 mm)? _____

M 205-90 6.3.2

Has rodding the stone in the mold caused any damage to the mold? _____

Has the water level in the mold dropped after 3 hours? _____