

# IN-HOUSE PROCEDURE # \_\_\_\_\_

## PROCEDURE FOR VERIFYING PROCTOR MOLDS

Item:

Proctor Mold

Purpose:

This method provides instructions for checking the critical dimensions and volume of a proctor mold.

Inspection Equipment Required:

1. Caliper, readable to 0.001 in. (0.01 mm) or better
2. Scale, readable to 0.002 lb (1 g) or better
3. Glass plate at least 1/4 inch (6 mm) thick
4. Thermometer, readable to 1 °F (0.5 °C) or better
5. Vaseline or other grease
6. Feeler Gauge, 0.005 in. (0.10 mm)
7. Straight-edge

Tolerance:

Equipment shall meet the dimensional tolerances specified in the applicable test method.

Procedure:

### CRITICAL DIMENSIONS

1. Measure the inside diameter of the mold.
2. Measure the height of the mold.
3. Measure the height of the collar.
4. Check the planeness of the base using the 0.005 in. feeler gauge and straight-edge. If the feeler gauge can be inserted between the straight-edge and the top of the base plate, the base plate is not plane.

### VOLUME

1. Place a thin film of grease on the upper and lower rims of the mold. Attach the mold to the base. Wipe of excess grease on inside or outside of mold.
2. Zero scale and weigh the mold assembly and glass plate.
3. Place mold assembly on a level surface. Fill the mold with room temperature water.
4. Place the glass plate over the top rim of the mold and seat firmly in place. Look for air pockets. If air pockets can be seen, remove the glass plate, refill the mold and try again.
5. Dry excess water from the outside of the mold and glass plate.
6. Weigh the filled mold assembly.
7. Determine the density of the water in lb/ft<sup>3</sup> or kg/m<sup>3</sup> at the measured temperature.
8. Calculate the volume of the mold in ft<sup>3</sup> or m<sup>3</sup>.