

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

### PROCEDURE FOR VERIFYING SPEEDY MOISTURE TESTER

Item:

Calcium Carbide Pressure Moisture Tester

Purpose:

This method provides instructions for checking the results for moisture content of soil or fine aggregates.

Inspection Equipment Required:

1. Oven capable of maintaining  $230 \pm 9$  °F ( $110 \pm 5$  °C)
2. Scale readable to 0.1 % of the sample mass or better

Tolerance:

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

Procedure:

1. Obtain at least a 200 g soil sample containing approximately 3 – 7 % moisture. Mix the soil sample well.
2. Clean the speedy moisture tester and place two steel balls inside the chamber. Add 3 scoops of reagent for 20 g or 26 g testers or 6 scoops for the 200 g tester.
3. Weigh out the required standard sample size for the speedy moisture tester from the mixed soil sample. Place the soil into the cap and seal the speedy moisture tester cap in place.
4. Immediately weigh the remaining sample and record the wet mass of soil. Dry the sample to a constant mass in the oven.
5. Conduct the speedy moisture test, correct the moisture content to a dry mass basis and record the results.
6. When the oven sample is dry, cool the sample to room temperature and immediately weigh the dry sample. Determine the oven dried moisture content of the soil.
7. Repeat the above procedures for moisture content ranges of 8 – 13 % and 14 – 18 %. If all of the speedy moisture tester results are within  $\pm 1.5$  % of the oven dried results, the meter is acceptable.