
ATTI - PERFORMANCE CHECKLIST

Field Technician

AASHTO T 217-14 Determination of Moisture in Soils by Means of a Calcium Carbide Gas Pressure Moisture Tester

Procedure

- SEC: 5.1* Place **three scoops** of calcium carbide in the **body** of the tester.
- SEC: 5.2* Soil **sample** weighed and placed in the **cap** of the moisture tester.
**Alternatively, the reagent may be placed in the cap and the sample in the body*
- SEC: 5.2* Place the **two steel balls** in the body of the moisture tester.
- SEC: 5.3* With the moisture tester in an approximately **horizontal position**, insert the cap and seal the tester, taking care that no carbide comes in contact with the soil until a complete seal is achieved.
- SEC: 5.4* Raise the moisture tester to a **vertical position** so that the soil in the cap falls into the pressure vessel.
- SEC: 5.5* Moisture tester shook vigorously in a rotating motion, **60 seconds** for granular soils and up to **180 seconds** for other soil types.
- SEC: 5.6* When the needle stops moving, read the dial while holding the moisture tester in a horizontal position at **eye level**. Time should be permitted to allow dissipation of the heat generated by the chemical reaction.
- SEC: 5.8* Empty the moisture tester and examine the material for **lumps**. If the sample is not completely pulverized, the test should be **repeated** using a new sample. Clean the cap thoroughly of all carbide and soil before running another test.
- SEC: 5.9* The dial reading is converted to dry mass using the conversion table.