

Procedure Checklist

FM 5-507 Determination of Moisture Content by means of a Calcium Carbide Gas Pressure Moisture Tester (Speedy Method)

| | | | |
|--|--|--------------------------------|--|
| Evaluation Date: | | IA Evaluator: | |
| ¹Qualification Area: | | Technician Name: | |
| ²Evaluation Type: | | Technician's Email: | |
| | | Supervisor's Name: | |
| Evaluation District: | | ³Tech. Type: | |
| | | Supervisor's Email: | |

| | | P | F | N/A |
|----------------------|--|---|---|-----|
| Participation | | | | |
| 1. | The technician participated in evaluation (technician refused to participate equals failure). | | | |
| General | | | | |
| 2. | Balance scale recalibrated as needed and checked at least daily using weights totaling 20 or 26 grams, depending on the tester used. | | | |
| 3. | Speedy is clean and dial is on zero prior to testing. | | | |
| 4. | The correct amount of reagent is placed in the body of the tester. | | | |
| 5. | Sample that represents the entire depth from the area underneath the nuclear density gauge is placed in moisture-proof container. | | | |
| 6. | Material is sieved using a No. 4 US sieve to remove large particles (only for coarse aggregates). | | | |
| 7. | Balance scale is level and stable, protected from the sun and wind, and tared prior to weighing sample. | | | |
| 8. | The representative sample is thoroughly mixed and weighs 20 or 26 grams, depending on the type of tester used. | | | |
| 9. | Sample is placed in cap. | | | |
| 10. | Tester is held horizontally, steel balls inserted, cap replaced, and steel balls placed in orbit. | | | |
| 11. | Appropriate testing time is used based on material being tested; at least 1 minute for sands/light granular/coarse materials and 3 minutes for heavy clay materials. | | | |
| 12. | Tester is shaken again for an additional 30 seconds, dial is checked again, and process is repeated until the needle stops moving. | | | |
| 13. | Final reading taken while tester is horizontal at eye level and after the dial is stabilized. | | | |
| 14. | Percent moisture is adjusted using the appropriate conversion chart. | | | |
| 15. | Tester cap is opened away from the operator post-testing. | | | |
| 16. | Sample is examined for lumps and if lumps are present, a second sample is tested. | | | |
| 17. | Cap and washer are cleaned with cloth. | | | |
| 18. | Body of tester is cleaned with brush. | | | |

Remarks: _____

Notes:

- 1 ECI Level I, ECI Level II
 2 IA Observation, IA Split, IA Split/IA Observation
 3 IA, QC, QC/VT, VT