



Performance Examination - Soils

Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass (ASTM D2216-19)

Candidate Name: _____ NICET ID: _____

Apparatus	Trial 1	Trial 2
Oven Maintains 110 ± 5 °C (230 ± 9 °F)		
Balance For samples 200 g or less readable to 0.01 g, for > 200 g readable to 0.1 g		
Water Content Containers Resistant to corrosion or change in mass, uniquely identified, and matched with a lid, if the lid is used.		

Procedures	Trial 1	Trial 2
1. A representative sample of moist soil selected		
2. Maximum particle size (100% passing) vs. minimum sample mass		
3. Method A: No.4 – 20 g, 3/8 in. – 50g, 3/4 in. – 250 g, 1.5 in – 1 kg, 3 in – 5 kg		
4. Method B: No.10 – 20 g, No.4 – 100 g, 3/8 in. – 500 g, 3/4 in. – 2.5 kg, 1.5 in – 10 kg, 3 in – 50 kg		
5. Mass of clean, dry container plus lid (if used) determined and container ID # recorded		
6. The sample placed in a container, immediately covered with lid, and weighed		
7. If water content data is to be used to calculate other relationships, such as moist or dry mass, then specimen mass up to 200 g determined using a balance accurate to 0.01 g		
8. Lid removed, a container placed in the oven, and sample dried to constant mass		
9. Water content calculated to nearest 0.1 % (ASTM Method A only: to nearest 1%) by the following formula: % moisture = mass of water x 100 mass of oven dry soil		

First Attempt: Pass: _____ Fail: _____ Second Attempt: Pass: _____ Fail: _____

Comments:

Examiner Name: _____ Examiner Signature: _____ Date: _____