

Equipment Checklist

FM 1-T099 The Moisture-Density Relations of Soils Using a 2.5kg or 5.5lb Rammer and a 305mm or 12in Drop

		P	F	N/A
Molds				
1.	Diameter 4.000 ± 0.016 in (101.60 ± 0.40 mm) or 6.000 ± 0.026 in (152.40 ± 0.70 mm)			
2.	Height 4.584 ± 0.018 inch (116.40 ± 0.50 mm)			
3.	Base plate plane to 0.005 inches (0.13 mm)			
4.	Detachable collar			
5.	Mold Volume 0.0333 ± 0.0005 ft ³ (0.000943 ± 0.000014 m ³) or 0.07500 ± 0.0009 ft ³ (0.002124 ± 0.000025 m ³)			
6.	Alternative mold assemblies conform to Note 2 (if used)			
Manual Rammer				
7.	Diameter 2.00 ± 0.01 inch (50.80 ± 0.25 mm) in service not less than 1.985 inch (50.42 mm)			
8.	Weight 5.5 ± 0.02 lbs (2495.0 ± 9.0 g)			
9.	Drop height 12.00 ± 0.06 inch (305 ± 2 mm)			
10.	Unrestricted drop			
11.	4 vent holes at each end no smaller than 0.375 in (9.5 mm) in diameter			
Mechanical Rammer				
12.	Diameter 2.00 ± 0.01 inch (50.80 ± 0.25 mm), in service not less than 1.985 inch (50.42 mm)			
13.	Drop height 12.00 ± 0.06 inch (305 ± 2 mm)			
14.	Drop adjusts to elev. of soil			
15.	Weight 5.5 ± 0.02 lb (2495.0 ± 9.0 g)			
16.	Mechanical Rammer calibrated once a year after any repair or when results are questionable by ASTM D2168			
17.	Sample extruder (or other device adopted to extract compacted samples from molds)			
Balances – Conforming to M231				
18.	Meeting the requirements of class G 5 capacity of approx. 11.5 kg and readability of 1.0 g			
19.	Also a balance meeting the requirements of class G 2 capacity and readability 0.1 g			
Drying Oven				
20.	Capable of maintaining 230 ± 9° F (110 ± 5° C)			
Straightedge				
21.	Made of Steel			
22.	At least 10 in (25 cm) long – one beveled edge			
23.	Edge plane to 0.01in or 0.1% of length within the portion used for trimming			
Sieves				
24.	Conforming to M92			
Mixing Tools				
25.	Pans and or Spoons			
Containers (for each moisture content)				
26.	Resistant to corrosion and not subject to change in mass or disintegration			

Remarks:

Date: _____ Technician: _____ IA Observer: _____

Technician's E-mail Address: _____

Employer's/Supervisor's E-mail Address: _____