

Air Entrainment

Air Entrainment Meter

UTC-0650

The air content of fresh concrete can be determined by using the Air Entrainment Meter. It has a quick action clamping system. Direct pressure gauge reading to the nearest 0.1% up to 6% air and 0.2% from 6 to 10% air. The meter is not affected by changes in the barometric pressure. The meter measures values up to 22% entrained air. It is appropriate for aggregate sizes of a maximum 63 mm.



Testing Method

The pressure method is used to take measurements of air content in fresh concrete. The total volume occupied by a fixed amount of air is determined by how much pressure needs to be applied. The test method with the meter is as follows:

- A fixed volume air chamber is pressured to a set operating pressure
- A valve is opened between the air chamber and the concrete sample chamber equalising air pressure between the two. The greater the volume of air in the concrete the higher the pressure drop will be
- The pressure gauge will then display the amount of air content.

This method is not intended for use where concrete is manufactured with light weight aggregates.

Air Entrainment Meter for Mortar

UTCM-0066

The Air Entrainment Meter for Mortar is used for determining the air content of cement paste, cement mortar and lime mortar. The air entrainment meter is manufactured from cast aluminium, the upper part and the lower test pot are held together with an air-tight seal which are easily adjusted by using the two spring clamps. The pressure gauge is installed in the head of the meter and the scale works in the 0-20 volumetric % range. The air is compressed with a hand pump installed in the system and the smart configuration of the test and correction buttons enables fast and simple testing.



Components

- Testing Vessel
- Flanged 7 litre capacity cylindrical vessel and cover assembly incorporating pressure gauge, air pump and valves.
- Straight Edge
- Tamping Rod
- Wash Bottle
- 250cc J-Type pipe and an inner extension pipe for calibration
- Carrying Case

Technical Specifications

Model	UTC-0650
Capacity	7 Litres
Air Content Range	0-10 %
Graduations	0.1% up to 6% / 0.2% from 6%-10%
Dimensions	300 x 310 x 610 mm
Weight	16 kg

About PCTE

PCTE have over 30 years' experience in the measurement and testing of construction materials. PCTE can provide more than just the equipment, they can provide expert training. PCTE have a service centre in Sydney in which they can provide calibration, repairs and warranty repairs.

PCTE supply three main ranges: NDT, Lab and Geotech Instrumentation.

- NDT includes: Rebound Hammers, Covermeters, Ultrasonics, GPR, Corrosion Testing, Coating Testing and Foundation Testing
- Lab includes equipment for: Concrete, Cement, Aggregate, Soil, Asphalt and Metal
- Geotech Instrumentation includes: Strain Gauges, Piezometers, Inclometers, Extensometers, Tiltmeters, Load Cells and Dataloggers