

Density

Pyknometer (Glass Jar Type)

UTA-1120

The Pyknometer is used for the determination of the relative density and water absorption for aggregates of 10 mm nominal size and smaller. This test method is in line with the requirements contained within BS 812.



Sand Absorption (Abraham Cone) Sets

UTA-0755

The Sand Absorption Abraham Cone Set can be used to discover the water absorption and specific gravity of fine aggregates, which are no larger than 10mm. To protect the apparatus against corrosion, it has been made from plated steel. The cone dimensions are:

- Upper diameter of 40 mm
- Lower diameter of 90 mm
- Height of 75 mm

The tamping rod has a 25 mm base diameter and is approximately 340g in weight. Once the specified number of revolutions stated in the relevant standard have occurred, the abrasion loss of aggregates is calculated.



Digital Length Comparator

UTCM-0037 Digital Length Comparator

UTCM-0038 Length Comparator with Heidenhain Length Measuring Sensor 220-240 V 50-60 Hz

Length Comparators are used to determine the length changes on different types of cement prisms.

The set consists of a length measuring frame with measuring apparatus attached to it. There are 2 models available:

- UTCM- 0037 with a 0.001 mm x 25 mm digital dial gauge
- UTCM-0038 with a special 0.0001 mm x 30 mm transducer and readout unit.

Reference rods and moulds should be ordered separately according to the test to be performed.



Density

Bulk Density Measures

| | | | |
|-----------------|----------------------|----|-----|
| UTA-0700 | Bulk Density Measure | 1 | lt. |
| UTA-0705 | Bulk Density Measure | 5 | lt. |
| UTC-0610 | Bulk Density Measure | 10 | lt. |
| UTA-0720 | Bulk Density Measure | 20 | lt. |

The Bulk Density Measures comply with the related standard. They are available in 1, 5, 10 and 20 litre capacity models, and have been constructed from heavy duty steel. The measures are coated against corrosion.

Specific Gravity Frame

UTW-1000

For the measurement of the specific gravity of fresh and hardened concrete and aggregates, the Specific Gravity Frame must be used, along with an appropriate electronic balance.

The apparatus consists of:

- Purpose built robust frame designed to support the electronic balance (not supplied)
- Wire basket
- Plastic water tank

The lower part of the frame includes a moving platform, which carries the water tank allowing the test specimens to be weighed in both air and water. Any type of electronic balance fitted with under-bench weighing facility can be used. Balance, Cradle and Density Basket should be ordered separately. The Specific Gravity Frame is supplied complete with a water tank



Three Gang Prism Shrinkage Mould

UTA-0850

The Two and Three Gang Shrinkage Moulds are used for the measurement of the effect of aggregates on the drying, shrinkage and length change of hardened cement paste, concrete and mortar. The Two Gang Shrinkage Mould is also used for the determination of the potential alkali reactivity of cement-aggregate combinations (mortar-bar method) according to ASTM standards. Reference rod should be ordered separately.

Shrinkage Moulds supplied complied with;

- Steel Insert

Technical Specifications

| | Dimensions (mm) | Weight (approx.) |
|-----------------|-----------------|------------------|
| UTA-0700 | 100x100x130 | 1.7 kg |
| UTA-0705 | 160x160x250 | 5 kg |
| UTC-0610 | 200x200x310 | 9 kg |
| UTA-0720 | 260x260x365 | 12 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.

Other Equipment

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