Determination of Compressive Strength of Unbound Granular Pavement Materials

TP184

Except where modified or clarified below, the procedure shall be as described in

***“AS 1289.6.4.1 Determination of Compressive Strength of a Specimen Tested in Undrained Triaxial Compression Without Measurement of Pore Pressure”.***

**Scope:**

This procedure determines the Cohesion and Friction Angle specified in Part R15 of the DPTI Master Specification.

**Modifications and Clarifications:**

Oversize material to be discarded from the test specimen shall be that retained on a 26.5mm sieve

A 100mm diameter x 200mm high mould as described in AS 1289 6.8.1 can be used in association with the standard triaxial cell. Static compaction by hydraulic ram in 2 layers is to be adopted. Specimens are compacted to 98% MDD and 80% OMC as determined from AS 1289 5.2.1.

Prepare three specimens for testing. This is to allow for a pair of duplicate tests, and a spare for repeat testing. The confining pressures to be used are 30, 60 & 90Kpa.

A specimen is to be mounted and initially tested at the first level of cell confining pressure (30Kpa). Thereafter the test will only proceed (imposed with vertical force) after the specimen has been pre-conditioned for one-hour at the next higher (cell) confining pressure.

Determine Mohr’s envelope of failure and report Cohesion and Friction Angle.

**Precision**

This procedure is considered to satisfy the accreditation requirements of AS/ISO 17025, Clause 5.4.6 “Estimation of uncertainty of measurement”, sub-clause 5.4.6.2, Note 2.

Technical Services Group

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