Australian Standard®

Methods of testing soils for engineering purposes

Method 6.4.1: Soil strength and consolidation tests—Determination of compressive strength of a soil—Compressive strength of a specimen tested in undrained triaxial compression without measurement of pore water pressure

AS 1289.6.4.1:2016

1 SCOPE

This Standard sets out a basic test procedure applicable to cohesive soils and a procedure for determining the compressive strength of a specimen of soil in the triaxial compression apparatus under conditions in which the cell pressure is maintained constant, and in which there is no change in the total water content of the specimen.

This Standard is not suitable for cohesionless materials.

The specific conditions of the test procedure are to be defined by a geotechnical professional who is responsible for ensuring the test method is appropriate for the data required.

2 REFERENCED DOCUMENT

The following document is referred to in this Standard:

AS	
1289	Methods of testing soils for engineering purposes
1289.2.1.1	Method 2.1.1: Soil moisture content tests—Determination of the moisture content of a soil—Oven drying method (standard method)

3 APPARATUS

The following apparatus is required:

(a) A triaxial test cell of dimensions appropriate to the size of the specimen, suitable for use with water as cell fluid and capable of withstanding a pressure of 1700 kPa. The cell shall be provided with a means of applying additional axial compressive load to the specimen through a loading ram.

The cell shall include a base pedestal of the same diameter as the test specimen. Where the base pedestal is not integral with the cell base, it shall be secured to the cell base so that the cap is level and axially aligned with the loading ram.