Australian Standard™

Methods of testing soils for engineering purposes

Method 6.1.3: Soil strength and consolidation tests—Determination of the California Bearing Ratio of a soil—Standard field-in-place method

1 SCOPE This Standard sets out the procedure for the field-in-place or in situ determination of the California Bearing Ratio (CBR) of a soil. The method is applicable to both fine-grained and medium-grained soils as defined in AS 1289.0.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1152 Specification for test sieves

1289 Methods of testing soils for engineering purposes

1289.0 Method 0: General requirements and list of methods

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)

1289.5.3.1 Method 5.3.1: Soil compaction and density tests—Determination of field density of a soil—Sand replacement method using a sand-cone pouring apparatus

1289.5.3.2 Method 5.3.2: Soil compaction and density tests—Determination of field dry density of a soil—Sand replacement method using a sand pouring can, with or without a volume displacer

1289.5.8.1 Method 5.8.1: Soil compaction and density tests—Determination of field density and field moisture content of a soil using a nuclear surface moisture-density gauge—Direct transmission mode

1289.6.1.1 Method 6.1.1: Soil strength and consolidation tests—Determination of the California Bearing Ratio—Standard laboratory method for a remoulded specimen

2103 Dial gauges and dial test indicators

2193 Methods for calibration and grading of force-measuring systems of testing machines

3 APPARATUS The following apparatus is satisfactory but alternative designs may be employed provided that the essential requirements of the apparatus are met and the test procedure is followed:

(a) Steel penetration piston of a 49.6 ±0.1 mm diameter over the length of the penetration and at least 150 mm long. The length of the piston will depend upon the number of surcharges and the depth of penetration required. Suitable extensions may be required.