

Australian Standard[®]

Methods of testing soils for engineering purposes

Method 5.4.2: Soil compaction and density tests—Compaction control test—Assignment of maximum dry density and optimum moisture content values

1 SCOPE

This Standard sets out the method for assigning maximum dry density and optimum moisture content values. The method is applicable only to very uniform materials and, therefore, usually is confined to manufactured materials such as crushed rocks that have been produced under controlled conditions.

NOTE: Occasionally, unprocessed materials, such as gravels and sands, will be found to meet the required criteria in Table 1. Due to the nature of the deposition and the composition of unprocessed materials, the MDD and OMC may vary throughout the deposit. Checks need to be made, as detailed in Clause 4(e), each time the unprocessed materials are used to ensure that the assigned values are still applicable.

2 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document:

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| 1289 | Methods of testing soils for engineering purposes |
| 1289.1.4.1 | Method 1.4.1: Sampling and preparation of soils—Selection of sampling or test sites—Random number method |
| 1289.1.4.2 | Method 1.4.2: Sampling and preparation of soils—Selection of sampling or test sites—Stratified random number method |
| 1289.5.1.1 | Method 5.1.1: Soil compaction and density tests—Determination of the dry density/moisture content relation of a soil using standard compactive effort |
| 1289.5.2.1 | Method 5.2.1: Soil compaction and density tests—Determination of the dry density/moisture content relation of a soil using modified compactive effort |
| 1289.5.4.1 | Method 5.4.1: Soil compaction and density tests—Compaction control test—Dry density ratio, moisture variation and moisture ratio |
| 1289.5.5.1 | Method 5.5.1: Soil compaction and density tests—Determination of the minimum and maximum dry density of a cohesionless material—Standard method |

3 DEFINITIONS

For the purposes of this Standard, the definitions below apply.

3.1 Lot

An area of work that is essentially homogeneous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the density ratio for an area of work with more than one test site.