

# Australian Standard<sup>®</sup>

## Methods of testing soils for engineering purposes

### Method 5.4.1: Soil compaction and density tests—Compaction control test—Dry density ratio, moisture variation and moisture ratio

AS 1289.5.4.1—2007

#### 1 SCOPE

This Standard sets out the method for determining the dry density ratio, moisture variation from optimum moisture content and moisture ratio of a soil at a test site. It is applicable to material that contains not more than 20% of material, on a wet basis, retained on the 37.5 mm sieve.

#### 2 NORMATIVE REFERENCES

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

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)   |
| 1289.2.1.2 | Method 2.1.2: Soil moisture content tests—Determination of the moisture content of a soil—Sand bath method (subsidiary method)   |
| 1289.2.1.4 | Method 2.1.4: Soil moisture content tests—Determination of the moisture content of a soil—Microwave-oven drying method (subsidiary method)                                       |
| 1289.2.1.5 | Method 2.1.5: Soil moisture content tests—Determination of the moisture content of a soil—Infrared lights method (subsidiary method)   |
| 1289.2.1.6 | Method 2.1.6: Soil moisture content tests—Determination of the moisture content of a soil—Hotplate drying method   |
| 1289.2.3.1 | Method 2.3.1: Soil moisture content tests—Establishment of correlation—Subsidiary method and the standard method   |
| 1289.3.5.1 | Method 3.5.1: Soils classification tests—Determination of the soil particle density of a soil—Standard 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                            |
| 1289.5.3.1 | Method 5.3.1: Soil compaction and density tests—Determination of the 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 the field density of a soil—Sand replacement method using a sand pouring can with or without a volume displacer |
| 1289.5.3.5 | Method 5.3.5: Soil compaction and density tests—Determination of the field dry density of a soil—Water replacement method  |