AS 1289.5.8.4—2009
(Incorporating Amendment No. 1)

Australian Standard®

Methods of testing soils for engineering purposes

Method 5.8.4: Soil compaction and density tests—Nuclear surface moisture-density gauges—Calibration using standard blocks

This Standard incorporates Amendment No. 1 (October 2012). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

1 SCOPE

This Standard sets out the method for the following:

(a) The calibration of the density system of a nuclear surface moisture-density gauge using standard density blocks. The calibration equation, so derived, defines the relationship between the density count ratio and field density for direct transmission measurement (see Notes 1 and 2).

NOTES:

1 A nuclear surface moisture-density gauge calibrated in accordance with this method may also be used for the determination of the field density of asphalt in accordance with AS 2891.14.1.1.

2 When the density and moisture systems operate independently, a gauge may be used to measure only one variable (either density or moisture).

(b) The partial calibration of the moisture system of a nuclear surface moisture-density gauge using standard moisture blocks. The calibration equation, so derived, defines the slope of the moisture calibration equation. The intercept of the moisture calibration equation for each particular material is determined from actual measurements of field moisture content, as detailed in AS 1289.5.8.1.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS		
1289		Methods of testing soils for engineering purposes
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
1289.5.8.5	Method 5.8.5:	Soil compaction and density tests —Nuclear surface moisture-density gauges—Density of a Type A or Type C Standard density block
1289.5.8.7	Method 5.8.7:	Soil compaction and density tests—Nuclear surface moisture-density gauges—Water content of a Standard moisture block using hydrogen content of components