

STANDARDS AUSTRALIA

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RECONFIRMATION

OF

AS 1289.3.1.2—2009

Methods of testing soils for engineering purposes

Method 3.1.2: Soil classification tests—Determination of the liquid limit of a soil—  
One point Casagrande method (subsidiary method)

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RECONFIRMATION NOTICE

Technical Committee CE-009 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 20 January 2017.

The following are represented on Technical Committee CE-009:

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**Methods of testing soils for engineering purposes****Method 3.1.2: Soil classification tests—  
Determination of the liquid limit of a soil—One  
point Casagrande method (subsidiary method)**

*This Standard incorporates Amendment No. 1 (October 2015). 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 a method for determining the liquid limit of a soil, (that is, the moisture content at which a soil passes from the plastic to the liquid state). The method is a rapid method since it involves taking only one measurement of the moisture content. This method is applicable only to cohesive fine-grained soils. The method may also be used on a sample of soil in its natural state.

NOTE: If it is suspected that the liquid limit is above 120%, the Standard procedure of AS 1289.3.1.1 will apply.

**2 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

AS

1289 Methods of testing soils for engineering purposes

1289.1.1 Method 1.1: Sampling and preparation of soils—Preparation of disturbed soil samples for testing

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)

1289.3.1.1 Method 3.1.1: Soil classification tests—Determination of the liquid limit of a soil—Four point Casagrande method

A1

1683 Methods of test for elastomers

1683.15.1 Method 15.1: International rubber hardness

**3 APPARATUS**

The following apparatus is required:

- (a) 2 mm thick, flat, rigid mixing plate of suitable size made of non-absorbent material.
- (b) Mixing bowl of convenient size with a suitable close-fitting lid.
- (c) Palette knives of convenient size.
- (d) Liquid limit apparatus conforming in the essential details to the device illustrated in Figure 1 of AS 1289.3.1.1. The base of the liquid limit apparatus shall be made either of four equal-thickness laminations of vulcanized rubber bonded into a block of the dimensions given in Figure 1 or from a single vulcanized rubber block (natural rubber with carbon black loading) finished to the dimensions given in Figure 1. The hardness