Australian Standard®

Methods of testing soils for engineering purposes

Method 3.2.1: Soil classification tests—Determination of the plastic limit of a soil—Standard method

1 SCOPE

This Standard sets out a method for determining the plastic limit of a soil (the moisture content at which a soil passes from the semi-solid to the plastic state).

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)

3 APPARATUS

The following apparatus shall be used:

(a) A thick, flat, rigid mixing plate of suitable size, made of non-absorbent material.

(b) A mixing bowl of convenient size with a suitable close-fitting lid.

(c) Palette knives of convenient size.

(d) Frosted glass plate of suitable size on which to roll the threads.

(e) A rod 3 mm in diameter and about 100 mm long.

(f) Small containers with close-fitting lids.

(g) A wash bottle or beaker containing potable water.

NOTE: Some types of clay may be affected by poor or marginally potable water. In such cases, and when testing for reference purposes, distilled, demineralized or deionized water should be used.

4 PROCEDURE

The procedure shall be as follows:

(a) Obtain a sample of about 40 g of soil from the material passing the 425 μm sieve which has been prepared in accordance with the procedure prescribed in AS 1289.1.1.

Alternatively, when practically all soil passes a 425 μm sieve the material may be used in the natural state without further preparation.