AS 1289.3.4.1—2008
Reconfirmed 2016

Australian Standard®



# Methods of testing soils for engineering purposes

# Method 3.4.1: Soil classification tests—Determination of the linear shrinkage of a soil—Standard method

## 1 SCOPE

This Standard sets out the method to determine the linear shrinkage of a soil.

## 2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

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| AS | | |
| 1289 | Methods of testing soils for engineering purposes | |
| 1289.0 | Part 0: | General requirements and list of methods |
| 1289.1.1 | Method 1.1: | Sampling and preparation of soils—Preparation of disturbed soil samples for testing |
| 1289.3.1.1 | Method 3.1.1: | Soil classification tests—Determination of the liquid limit of a soil—Four point Casagrande method |
| 1289.3.1.2 | Method 3.1.2: | Soil classification tests—Determination of the liquid limit of a soil—One point Casagrande method (subsidiary method) |
| 1289.3.9.1 | Method 3.9.1: | Soil classification tests—Determination of the cone liquid limit of a soil |
| 1289.3.9.2 | Method 3.9.2: | Soil classification tests—Determination of the cone liquid limit of a soil—One point method |

## 3 APPARATUS

The following apparatus shall be used:

(a) Plated steel, stainless steel or brass shrinkage moulds in the form of semi-cylindrical troughs, of 250 mm internal length (nominal) and 25 mm internal diameter (nominal), with ends brazed-on normal to the longitudinal axis of the mould, and flush with the top of the mould.

NOTE: When the quantity of material under test is limited, shorter moulds may be used but they should not be less than 100 mm in length. Proficiency tests have shown that the length of mould can affect the final test result.

(b) Drying oven 105°C to 110°C complying with AS 1289.0 (optional).

(c) Steel rule, about 300 mm long, graduated in millimetres.

(d) Palette knife of convenient size.

(e) Thick, flat, rigid mixing plate of suitable size made of non-absorbent material and/or a mixing bowl of convenient size, with a suitable close-fitting lid.

(f) Petroleum jelly or mould oil.