

# Australian Standard<sup>®</sup>

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## Methods of testing soils for engineering purposes

### Method 7.1.3: Soil reactivity tests— Determination of the shrinkage index of a soil—Core shrinkage index

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**1 SCOPE** This Standard sets out a method for determining the shrinkage index of a soil (see AS 2870) by core shrinkage testing.

**2 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

**AS**

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|------------|--|
| 1289       | Methods of testing soils for engineering purposes  |
| 1289.0     | Part 0: General requirements and list of methods   |
| 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) |
| 1289.2.2.1 | Method 2.2.1: Soil moisture content tests—Determination of the total suction of a soil—Standard method                         |
| 2870       | Residential slabs and footings—Construction  |

**3 APPARATUS** The following apparatus is required:

- Thin-walled sampler consisting of a tube with a bevelled cutting edge machined directly on the sample tube. The bevelled cutting edge shall make an angle not exceeding  $15^\circ$  to the axis of the tube with a permitted land width at the cutting edge not exceeding 0.5 mm. The ratio of net projected area of sampler to projected area of sample core shall not exceed 10%, and any internal clearance shall not exceed 1% of the diameter at the cutting edge.
- Drying oven complying with AS 1289.0.
- Balance of 500 g capacity having a limit of performance not exceeding  $\pm 0.05$  g.
- Spatula or palette knife of convenient size.
- Vacuum desiccator.
- Metal drawing pins.
- Vernier callipers with a precision of 0.05 mm, capable of measuring lengths 50 to 120 mm.
- Apparatus to measure total soil suction in accordance with that described in AS 1289.2.2.1.
- Drying room with temperature controlled at  $23 \pm 2^\circ\text{C}$ .
- Supersaturated solution of ammonium chloride (see Note 1).