

Australian Standard[®]

Methods of testing portland, blended and masonry cements

Method 14: Length change of cement mortars exposed to sulfate solution

AS 2350.14—2006

1 SCOPE

This Standard sets out the method for determining the length change of mortar bars, of defined composition, immersed in a sodium sulfate solution. The length change is taken as a measure of the sulfate resistance of cement.

NOTES:

- 1 The testing procedure herein may involve the use of materials or equipment that require safety measures to be observed.
- 2 This Standard does not purport to address all of the safety concerns, if any, associated with its use.
- 3 The user of this Standard should establish appropriate safety and health practices, and determine the applicability of regulatory limitations prior to use.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 2350 Methods of testing portland, blended and masonry cements
2350.12 Method 12: Preparation of a standard mortar and moulding of specimens

AS/NZS

- 2350 Methods of testing portland, blended and masonry cements
2350.1 Method 1: Sampling
2350.11 Method 11: Compressive strength

ASTM

- C1012 Standard Test Method for Length Change of Hydraulic-cement Mortars Exposed to a Sulfate Solution

3 PRINCIPLE

The method determines length change of prismatic test specimens 40 mm × 15 mm × 150 mm in size after immersion in a sulfate solution.

The mortar is prepared and the specimens are moulded generally in accordance with AS 2350.12. The specimens are cured for 7 d before immersion in the standard sulfate solution. Measurement of the specimen length is carried out, initially after the 7 d curing and before immersion in the sulfate solution, and subsequently every 2 weeks and up to 16 weeks after immersion in the sulfate solution.