Australian/New Zealand Standard™

Methods of testing portland, blended and masonry cements

Method 5: Determination of soundness

1 SCOPE

This Standard sets out the method for determining the soundness of cement using a paste of normal consistency.

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/NZS
2350 Methods of testing portland, blended and masonry cements
2350.1 Method 1: Sampling
2350.3 Method 3: Normal consistency

3 PRINCIPLE

A paste of normal consistency is obtained by the procedure described in AS/NZS 2350.3. A measure of the soundness is given by an increase in volume of the hardened cement paste as indicated by an increase in the distance separating the indicator points of the apparatus.

4 APPARATUS AND RELATED CONDITIONS

4.1 Laboratory

The air within the laboratory where the preparation and testing of the specimen takes place shall be maintained at a temperature of 23 ±2°C, and at a relative humidity of not less than 50%.

4.2 Apparatus

The following apparatus is required and shall be maintained within the tolerances specified:

(a) *Le Chatelier mould* The Le Chatelier mould shall conform to Figure 1 and the tolerances shown thereon. The apparatus consists of a small split cylinder of spring brass or other suitable metal of 0.5 mm thickness, forming a mould of 30 mm internal diameter and 30 mm high. On either side of the split are attached two indicators with pointed ends AA, the distance from these ends to the centre of the cylinder being 165 mm.

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