

STANDARDS AUSTRALIA

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**RECONFIRMATION**

**OF**

**AS 4489.10.1—1997**

**Test methods for limes and limestones**

**Method 10.1: Bulk density—Quicklime and hydrated lime**

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**RECONFIRMATION NOTICE**

Major stakeholders of this publication have been consulted and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 03 June 2016.

## NOTES

# Australian Standard®

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## Test methods for limes and limestones

### Method 10.1: Bulk density—Quicklime and hydrated lime

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**1 SCOPE** This Standard describes a method for the determination of bulk density in quicklime and hydrated lime.

**2 REFERENCED DOCUMENT** The following document is referred to in this Standard:

AS

4489 Test methods for limes and limestones

4489.1.1 Method 1.1: Sample preparation—Quicklime and hydrated lime

**3 PRINCIPLE** A measure of known volume is filled with the sample (and tamped for compacted bulk density) and weighed. The bulk density is calculated by dividing the mass by the known volume.

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

- (a) Balance, capable of weighing approximately 10 kg to an accuracy of 3 g.
- (b) Measure, 5 L minimum capacity, nominal internal diameter 200 mm, nominal internal depth 170 mm.
- (c) Tamping tool, 15 mm diameter nominal, spherical-ended.

#### 5 PROCEDURE

**5.1 General** The sample preparation shall be in accordance with AS 4489.1.1.

**5.2 Compacted bulk density** The procedure shall be as follows:

- (a) Record weight of measure, fill to one-third full of sample and roughly level.
- (b) Tamp the sample with 25 strokes of the rounded end of the tamping tool.
- (c) Add sample to the measure to about two-thirds full, and repeat the levelling and tamping procedure.
- (d) Fill the measure to overflowing, roughly level the surface. Tamp with 25 strokes of the tamping tool.
- (e) Strike off the surplus sample, using the tamping tool as a straightedge.
- (f) Record the total weight of the measure plus sample.
- (g) Divide the net mass of the sample by the actual volume of the measure. The result is the compacted bulk density of the lime sample.

**5.3 Loose bulk density** The procedure shall be as follows:

- (a) Record weight of measure.
- (b) Fill in one layer, dropping the sample from 50 mm above the top of the measure.