

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 4489.3.1—1997

Test methods for limes and limestones

Method 3.1: Slaking—Dewar flask

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®

Methods of tests for limes and limestones

Method 3.1: Slaking—Dewar flask

FOREWORD

Although in other related Standards, the slaking rate test and the residue on slaking test are done separately and independently, the procedure in this Standard acknowledges that the four-to-one ratio of water to lime applying to both tests allows the residue on slaking to be determined immediately after the slaking rate has been done. This also enforces the safety measure of adding the lime to the water for the residue on slaking. ANSI/AWWA B202, *Quicklime and hydrated lime*, has been used as the basis for formulating the procedure.

METHOD

1 SCOPE This Standard sets out a method that allows the determination of not only the rate at which lime slakes and the reactivity (in the sense of heat output) but also what material will not slake and remains gritty.

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

AS

1152 Specification for test sieves

3 APPARATUS The following apparatus is required (See also Figures 1 and 2):

- (a) *Mechanical stirrer*—with a speed of 400 ± 50 r.p.m., fitted with a special stainless-steel stirring rod of a suitable length to allow a gap of 6 to 10 mm between the stirring rod and bottom of the flask. A variable speed motor may be used to control the stirrer.
- (b) *A Dewar flask*—of heat-resistant glass or stainless steel and of nominal 1 L capacity, fitted with special rubber gasket covers or suitable insulated covers.
- (c) *Support*—for holding the stirrer, fitted with a large clamp to hold the Dewar flask firmly in place.
- (d) *Temperature measuring device*—e.g. dial thermometer, range 0 to 100°C in increments of 1°C, or a temperature probe, along with a data logger or chart recorder.
- (e) *Balance*—capacity 500 g minimum, accurate to 0.03 g.
- (f) *Stopwatch*.
- (g) *Tachometer*.