

Australian Standard[®]

Test methods for limes and limestones

Method 7.1: Loss on ignition—Quicklime, hydrated lime and limestone

1 SCOPE This Standard describes the method for determining loss on ignition in limestone, 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 The sample is ignited at 900 to 1000°C to ensure loss of both carbon dioxide and water.

4 APPARATUS The following apparatus is required:

- (a) Balance, analytical type accurate to 0.0003 g.
- (b) Crucible, inert e.g. porcelain, platinum, 20 to 30 mL capacity.
- (c) Furnace, muffle, 950 ±50°C.
- (d) Heat exchange block, e.g. copper.
- (e) Desiccator.

5 PROCEDURE The following procedure applies:

- (a) Weigh a clean, empty crucible (m_0).
- (b) Add a minimum of 2 g of sample into the crucible and reweigh to the nearest 0.0001 g (m_1). (Sample preparation shall be in accordance with AS 4489.1.1.)

NOTE: Gently tap the crucible to obtain a level surface and eliminate voids, ensuring there is sufficient room at the crucible rim to grasp the crucible without disturbing the sample.

- (c) Place the crucible and contents into the muffle furnace at 950 ±50°C for at least 30 min.
- (d) Cool the crucible and contents on the heat exchange block for approximately 5 min.
- (e) Transfer to a desiccator and cool for a further 15 min approximately.
- (f) Reweigh the crucible and contents (m_2).