

Technical Specification

**Transport and Main Roads Specifications
MRTS23 Supply and Delivery of Quicklime and Hydrated
Lime for Road Stabilisation**

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1 Introduction

This Technical Specification applies to the supply of dry lime for incorporation in soil stabilisation work and its delivery to the site of the works or any other location(s) specified by the Principal.

This Technical Specification shall be read in conjunction with MRTS01 *Introduction to Technical Specifications*, MRTS50 *Specific Quality System Requirements* and other Technical Specifications as appropriate.

This Technical Specification forms part of the Transport and Main Roads Specifications Manual.

2 Definition of terms

The terms used in this Technical Specification shall be as defined in Clause 2 of MRTS01 *Introduction to Technical Specifications*.

Additional terms used in this Technical Specification shall also be as defined in MRTS07A *In situ Stabilised Subgrades using Quicklime or Hydrated Lime*.

3 Referenced documents

Table 3 lists documents referenced in this Technical Specification.

Table 3 – Referenced documents

Reference	Title
AS 1672.1	<i>Limes and limestones - Limes for building</i>
AS 4489.6.1	<i>Test methods for limes and limestones - Lime index - Available lime</i>
MRTS01	<i>Introduction to Technical Specifications</i>
MRTS07A	<i>In situ Stabilised Subgrades using Quicklime or Hydrated Lime</i>
MRTS50	<i>Specific Quality System Requirements</i>

4 Standard test methods

The standard test methods listed in Table 4 shall be used in this Technical Specification.

Further details of test method numbers and test descriptions are given in Clause 4 of MRTS01 *Introduction to Technical Specifications*.

Table 4 – Standard test methods

Property to be tested	Method No.
Available lime index	AS 4489.6.1

5 Material

Lime shall comply with the requirements of AS 1672.1 with regard to physical requirements, chemical requirements, sampling and marking of containers and bags.

Lime shall be either:

- quicklime, supplied in a fine granular form with the maximum dimension, in any direction, of granules not exceeding 3 mm and can be readily slaked with water, or
- powdered hydrated lime.

In addition to meeting the requirements of AS 1672.1, quicklime and hydrated lime shall be capable of being spread uniformly by means of a bulk spreader, without producing excessive dust during the spreading operation.

At the time of spreading and incorporation of the lime into the works, the lime shall not be more than six months old, measured from its date of manufacture.

The lime shall have an Available Lime Index of not less than 80% from the time of manufacture up to the time of spreading and incorporation. Lime shall be sampled and tested in accordance with AS 4489.6.1 to demonstrate the Available Lime Index does not fall below 80% at the following times:

- at the time of manufacture, and
- monthly between three to six months from its date of manufacture.

A certificate of test results demonstrating compliance shall be provided to the Administrator and included in quality records, for each load, or part thereof, of each source and/or type of lime.

The Administrator may reject the lime supplied if in the Administrator's opinion the lime supplied contains over-burned, re-carbonated or impure lime.

6 Mode of supply

Quicklime and hydrated lime shall be supplied in bulk form only.

7 Weight of lime

If lime is supplied in bulk form, each delivery vehicle shall have the weight of lime delivered certified on a registered public weighbridge. A copy of each certified weighbridge docket shall be included in the quality records and shall be provided to the Administrator.

8 Rate of delivery

Lime shall be delivered at the rate stated in the Contract except that, where the Administrator directs the rate stated in the Contract is to be modified, the rate of delivery shall be mutually agreed between the Administrator and the Contractor.

9 Mode of delivery

All deliveries of bulk lime shall be made in air-tight, water proof and water-tight blower type vehicles. Further the delivery vehicles shall be specifically designed for the purpose and shall be capable of discharging the lime at a rate not less than 40 tonnes per hour into the spreader or bulk storage bin, as relevant. These delivery vehicles shall have the capability to pneumatically transfer the lime from the vehicle to a bulk storage silo or bulk spreader as necessary. Equipment used to transfer the lime shall be waterproof during the transfer process. All equipment used to deliver / transport or store the lime shall be emptied, cleaned and dried prior to the introduction of each different type or source of lime.

