



**Transport**  
Roads & Maritime  
Services

# Test method T431

## Residue of quicklime after slaking

OCTOBER 2012



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## Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		Reformatted and Revision Summary Added	D.Dash	May 1999
		Date on Test Method Revised to Agree with Date on Revision Summary	D.Dash	Feb 2001
Ed 2/ Rev 0	All	Reformatted RMS template	J Friedrich	October 2012

Note that Roads and Maritime Services is hereafter referred to as 'RMS'.

The most recent revision to Test method T431 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

# Test method T431

## Residue of quicklime after slaking

### 1. Scope

This test method sets out the procedure for determination of the residue of quicklime after slaking with water.

It is applicable to quicklime proposed for use in the stabilisation of road materials.

### 2. Apparatus

- (a) A balance of at least 500 g capacity, accurate and readable to 0.1 g within the operating range.
- (b) A thermostatically controlled oven with good air circulation capable of maintaining a temperature within the range of 105°C to 110°C.
- (c) A 425 µm A.S. sieve.
- (d) Sieve brushes.
- (e) Scoops, spatulas, tongs, etc.
- (f) Goggles and gloves.

### 3. Procedure

- (a) Take a sample of approximately 200 g of the quicklime and weigh accurately to the nearest 0.1 g and record the mass. ( $M_1$ ).
- (b) Slowly pour the quicklime onto the 425 µm sieve and wash the material using a water spray. Discard the washings.

CAUTION: Goggles and gloves should be worn while carrying out the test procedure as slaking of quicklime involves the generation of considerable heat and steam. Quicklime is very corrosive and may cause burns to the skin and eyes.

- (c) Continue the washing until the residue appears to be nothing but core and coarse sand-like particles.
- (d) Dry the residue on the sieve to constant mass at a temperature between 105°C and 110°C. Determine the mass ( $M_2$ ) of residue and record to the nearest 0.1 g.

### 4. CALCULATIONS AND REPORTING

- (a) Calculate the residue or slaking expressed as a percentage by mass as follows:

$$R = \frac{M_2}{M_1} \times 100$$

Where R = percentage of residue or slaking

$M_1$  = mass of quicklime taken

$M_2$  = mass of residue

- (b) Report the residue on slaking to the nearest 0.1%.