



Test method T371

Determination of calcium nitrite quantity
in fresh concrete (Test strips)

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Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		New Issue- Greg Forster	D.Dash	Nov 1999
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 T371 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T371

Determination of calcium nitrite quantity in fresh concrete (Test strips)

1. Scope

This test method is used to determine the quantity of calcium nitrite solids that have been added to fresh concrete.

2. Procedure

- (a) Add 200 ml of freshly mixed concrete (based on 24 litres DCI-S dosage) by graduated cups to a premeasured quantity of 2 litres of water in a wide mouth 5-litre container.
- (b) Stir vigorously for two minutes until well mixed.
- (c) Allow the water-concrete mixture to stand for about two to five minutes and use syringe to uptake about 10ml of the extraction water (do not attach filter).
- (d) Attach disposable filter to the end of the syringe. Filter about 5ml of the extracted solution into a small, clean, disposable cup.
- (e) Dip the Nitrite 3000 test strip into the filtered sample for 1 second.
- (f) Wait 60 seconds for the colour on the strip to develop. Compare the colour developed on the strip with the chart on the side of the test strip container.
- (g) Note the amount of nitrite as g/l.

3. Equipment Needed

Container, 5 litre capacity

- (a) Disposable 10 ml syringe
- (b) 25 mm and 0.45 micron disposable filters
- (c) Quantofix Nitrite 3000 (0, 1-3g/l NO₂)

4. Interpretation of Results

If the amount of nitrite measured is above 0.6 g/l NO₂, then there are more than 9 kg/m³ of calcium nitrite solids in the fresh concrete.