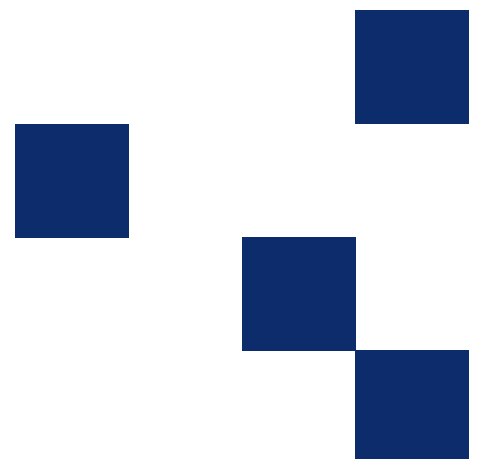




# Test method T262

Determination of moisture content of  
aggregates (Standard method)

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 T262 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

## Test method T262

### Determination of moisture content of aggregates (Standard method)

#### 1. Scope

This test method sets out the procedure for the standard method for the determination of the moisture content of coarse and fine aggregates using oven-drying to constant mass of the sample.

#### 2. Apparatus

- (a) A thermostatically controlled oven with good air circulation capable of maintaining a temperature within the range of 105°C - 110°C or a microwave oven, preferably with temperature control. (See *Techniques*)
- (b) Heat resistant, non-absorbent, moisture dishes of appropriate capacities. Dishes to be used in the microwave oven should be non-metallic
- (c) A balance of suitable capacity and accuracy, according to the Table in *Test Samples*
- (d) Scoops, spatulas, tongs, etc

#### 3. Test Samples

Test samples of the following approximate masses shall be obtained by quartering:

TABLE 1

Aggregate	Minimum Mass	Accuracy of Weight
Fine	300 g	0.1 g
Coarse	2800 g	1.0 g

#### 4. Procedure

- (a) Place the sample in a clean dry container of known mass ( $M_1$ ). Determine the mass of the container and contents ( $M_2$ )
- (b) Dry sample to constant mass in the oven
- (c) Remove container with contents from the oven and cover until cool enough to handle. (See *Techniques (d)*)
- (d) Determine the mass of the container and contents ( $M_3$ ).
- (e) Where a convection oven is used 16 - 18 hours is usually sufficient for drying most materials. Where there is doubt as to the adequacy of drying, continue drying until the difference between successive determinations of mass of sample, at intervals of 30 minutes, does not exceed 0.1% of the original mass of the sample.  
Where a microwave oven is used select a suitable oven setting and drying period (see *Techniques (a)*).

## 5. Calculations

Calculate the moisture content ( $w$ ) of the test sample as a percentage of the dry mass of the sample as follows:

$$w = \frac{M_2 - M_3}{M_3 - M_1} \times 100$$

Where  $M_1$  = mass of container plus lid.  
 $M_2$  = mass of container plus lid plus wet sample.  
 $M_3$  = mass of container plus lid plus dry sample.

## 6. Reporting

The moisture content of the sample shall be reported to the nearest 0.5%.

## 7. Techniques

- (a) Where a microwave oven is used preliminary investigation may be necessary to determine a suitable oven setting and drying period.
  - (i) Temperature control of a microwave oven is only considered necessary with aggregates that may explode.
  - (ii) The drying period will depend on the type of aggregate and its moisture content. For most aggregates 20 minutes should be a maximum drying period in an uncontrolled microwave oven.
- (b) If necessary carry out any prescribed safety checks prior to the use of the microwave oven. The microwave should never be operated without a load and the interior and door seals, in particular, should be kept clean at all times.
- (c) Microwave ovens should not be used to dry samples of aggregate which are later going to be used as test portions in strength or particle size tests.
- (d) Alternatively the samples may be weighed immediately provided the balance is suitably protected from heat damage.