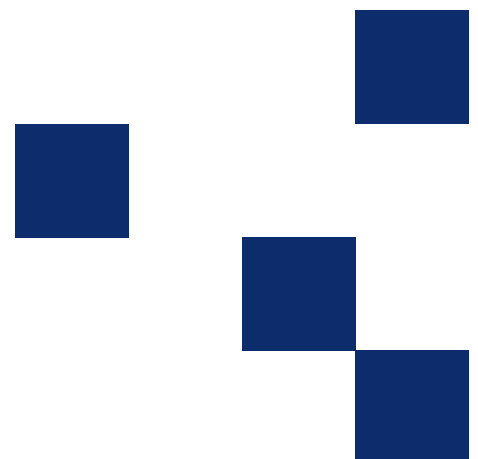




# Test method T568

## Resistance to stripping of aggregates and bitumen emulsions

NOVEMBER 2012



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## Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		Reformatted and Revision Summary Added	D.Dash	Jan 2000
Ed 2/ Rev 0	All	Reformatted RMS template	J Friedrich	Nov 2012

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

The most recent revision to Test method T568 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

# Test method T568

## Resistance to stripping of aggregates and bitumen emulsions

### 1. Scope

This test method sets out the procedure for the preparation, curing and assessment of resistance to stripping in the presence of moisture, of samples of aggregate, which have been coated with bitumen emulsion. The method has been developed from a test proposed by the Montana State Highway Commission.

### 2. Apparatus

- (a) A porcelain evaporating dish approximately 230 mm diameter.
- (b) A spatula of Ebonite or similar material with a blade  $19 \pm 1.5$  mm wide with a rounded end.
- (c) A balance of 6 kg capacity accurate and readable to 0.5 g within the operating range.
- (d) A timing device such as a stop watch or clock with a seconds sweep hand.
- (e) A wire mesh screen with approximately 3 mm apertures.
- (f) A 1 litre glass jar.
- (g) A 2 litre paint tin fitted with a lid.

### 3. Test Materials

- (a) Aggregate crushed and screened to pass the 9.5 mm sieve and retained on the 4.75 mm sieve, washed and dried.
- (b) Bitumen emulsion of various types and grades.

### 4. Procedure

- (a) Place 300 pieces of the aggregate sample in the porcelain dish and add 50 g of the thoroughly mixed emulsion under test.
- (b) Stir the sample until complete coating is obtained and allow the mixture to set for three minutes.
- (c) Restir the mix and place on the elevated screen and allow to drain and cure in air overnight.
- (d) Remove the coated aggregate from the screen with a stiff spatula and place in a litre jar filled with tap water at room temperature and allow to soak overnight.
- (e) Transfer the water and mixture to a two litre tin and place in a paint shaker and shake for ten minutes.
- (f) Remove the tin from the paint shaker, decant the water and wash the contents of the tin free from stripped bitumen.
- (g) Place the remaining aggregate/bitumen mixture into groups according to the following features :
  - (i) Completely stripped - No bitumen adhering to the particles.
  - (ii) Partly stripped - Substantial part of aggregate covered with bitumen.
  - (iii) Not stripped - Bitumen adhering to all or almost the entire surface of the aggregate.

### 5. Calculations

After visual assessment of each aggregate particle calculate the percentage of particles by number, which have been stripped as follows:

- |                         |   |                      |
|-------------------------|---|----------------------|
| (i) Completely stripped | - | Count one third unit |
| (ii) Partly stripped    | - | Count one sixth unit |
| (iii) Not stripped      | - | Count nil.           |

## **6. Reporting**

Report the following data and results as appropriate:

- (a) Type and source of aggregate.
- (b) Type, grade and source of emulsion.
- (c) Percentage of aggregate particles stripped.