Transport Roads & Maritime Services

NSW GOVERNMENT

Test method T202

Presence of friable particles in aggregates

OCTOBER 2012

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 T202 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T202

Presence of friable particles in aggregates

1. Scope

This test method sets out the procedure for the determination of the proportion of friable particles in fine and coarse aggregates. The method conforms to that set out in Australian Standard 1141.

2. Apparatus

(a) A balance of 1 kg 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 600 μm AS sieve

3. Test Portion

(a) **Fine Aggregate**: Take sufficient material to provide a minimum of 500 g of that portion retained on a 600 μm test sieve.

(b) **Coarse Aggregate**: Take sufficient material to provide a minimum of 5 kg of that portion retained on a 600 μm test sieve.

4. Procedure

(a) Dry the test portion to constant mass and determine its mass (M)

(b) Remove the portion passing the 600 μm sieve, taking care to keep sieving time to a minimum so as to avoid the breakdown of friable particles at this stage

(c) Spread the test portion in a thin layer in a suitable dish or on a strong sheet of impermeable material such as polyethylene

(d) Crush the friable particles by finger pressure

(e) Separate the test portion again on the 600 μm sieve and determine the mass of the amount passing that sieve (M_F)

5. Calculations

Calculate the percentage (by mass) of friable particles as follows:

$$C = \frac{M_F}{M} \times 100$$

Where

C = percentage by mass of friable particles

M_F = the mass of fines produced by crushing the friable particles

M = the mass of the test portion

6. Reporting

Report the percentage of friable particles, by mass, to the nearest 0.1%.

7. Techniques

To avoid damage to sieves when sieving coarse aggregate, an intermediate sieve such as a 4.75 mm should be introduced, in which case the mass required is the combined mass of the material retained on both sieves.