Transport Roads & Maritime Services

NSW GOVERNMENT

Test method T590

Homogeneity of liquid precoats and adhesion agents

NOVEMBER 2012

Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
Ed 1/Rev 0	All	Reformatted and Revision Summary Added	D Dash	Jan 2000
		Disclaimer removed	J Friedrich	June 2009
Ed 2/ Rev 0	All	Reformatted RMS template	J. Friedrich	November 2012

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

The most recent revision to Test method T590 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T590

Homogeneity of liquid precoats and adhesion agents

1. Scope

This test method sets out the procedure to indicate the ability of liquid precoats and adhesion agents to remain homogeneous in a sealed container when stored in a hot, air free environment.

2. General

(a) The test includes the following steps:

(i) Heating the sample for 3 days and then allowing to cool.

(ii) Visual assessment of any separation within the sample.

(iii) Testing of 2 sub-samples according to T230 Resistance to Stripping of Aggregates and Binders.

3. Apparatus

(a) Lever lid cans with lids and 1 L capacity.

(b) Stirring rod.

(c) Steel rule or template to measure 20 ± 5 mm.

(d) A thermostatically controlled oven with good air circulation, which can be maintained at 50° ± 2°C for 72 h.

(e) A thermostatically controlled air environment capable of maintaining temperature at 23° ± 2°C.

(f) Sampling device.

NOTE: A 5-10 mL syringe may be suitable.

(g) Metal spatula.

4. Preparation

(a) Obtain a sample of liquid precoat and adhesion agents.

5. Procedure

5.1 Separation

(a) Thoroughly mix the liquid and then fill the 1 L lever lid can to 20 ± 5 mm from the rim. Replace the lid firmly on the can to provide an air-tight seal.

(b) Place the sealed can in the oven at 50° ± 2°C for 72 ± 0.5 h.

(c) Without disturbing the sample, carefully remove the can from the oven and stand at 23° ± 2°C for at least 4 h.

(d) With minimal disturbance to the sample, carefully carry out the following:

(i) Remove the lid and assess the sample for the presence of a clear layer, a skins on the surface or lumpiness in the sample.

(ii) Lower the spatula to the bottom of the can and assess whether any settlement has occurred.

(iii) Take one sub-sample of at least 10 mL from between 10 and 20 mm below the surface of the sample.

(iv) Take a second sub-sample of at least 10 mL from no more than 10 mm above the bottom of the can.

5.2 Stripping

(a) Separately test the 2 sub-samples in accordance with T230 with the following requirements:

(i) A usage rate of 7 L/m^3 for precoats and 0.5% v/v for adhesion agents.

(ii) Use the following 2 aggregates prepared as dusty and saturated surface wet particle condition:

- Microgranite (ex Mugga 1 Quarry, Canberra).
- Nepean River Gravel (ex Emu Plains).

6. Calculations

There are no calculations.

7. Reporting

Include the following results in the report:

(a) The product identification, batch numbers and date of production.

(b) The presence of any segregation, lumpiness, skins or settlement.

(c) From T230, the percent stripped to the nearest 2% for each of the 2 sub-samples and each of the two aggregates and two surface conditions.

(d) Reference to this test method.