



**Transport**  
Roads & Maritime  
Services

# Test method T866

Residue on ignition of wax emulsion  
curing compounds

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	Jun 2001
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 T866 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

# Test method T866

## Residue on ignition of wax emulsion curing compounds

### 1. Scope

This test method sets out the procedure for determination of the residue on ignition (pigment content) of wax emulsion concrete curing compounds.

### 2. Apparatus

- (a) A balance of 200 g capacity, accurate and readable to 0.0001 g.
- (b) Porcelain or platinum crucible of approximately 30 mL capacity.
- (c) Bunsen burner, tripod and silica triangle.
- (d) Metal tongs for handling the crucible.
- (e) A thermostatically controlled oven capable of maintaining a temperature of  $105 \pm 3^\circ\text{C}$ .
- (f) Muffle furnace capable of maintaining a temperature of  $600^\circ\text{C} \pm 10^\circ\text{C}$ .

### 3. Procedure

- (a) Thoroughly shake the sample container end over end so as to obtain a uniformly mixed sample.
- (b) Accurately weigh into a tared crucible, to the nearest 0.0001 g, approximately 5 g of sample ( $M_1$ ).
- (c) Place the crucible in the  $105^\circ\text{C}$  oven to evaporate all the water.

**Note: This is preferably done by overnight heating. For quicker removal of water the crucible can be gently heated with a bunsen. The heating has to be very gentle otherwise bumping and splattering and loss of sample can occur.**

- (d) Once all the water has been removed, heat the crucible gently with a bunsen to char and carbonize the organic matter. Do not allow the sample to ignite. Gradually increase the intensity of heating as the volatiles are removed to burn off all the carbonaceous matter.
- (e) Heat the crucible in the muffle furnace at  $600^\circ\text{C} \pm 10^\circ\text{C}$  for 30 minutes, remove, cool in a dessicator and weigh.
- (f) Heat the crucible again in the muffle furnace for 10 - 15 minutes, remove, cool in a dessicator and re-weigh.
- (g) Repeat step (f) until the crucible mass is constant ( $M_2$ )

### 4. Calculations

Calculate the residue remaining in the crucible as a percentage of the mass of original sample taken for testing.

$$\text{Residue \%} = \frac{M_2}{M_1} \times 100$$

Where:

$M_1$  = Mass of sample taken where

$M_2$  = Mass of residue.

### 5. Reporting

Report to the first decimal place, the residue on ignition of the wax emulsion curing compound.