



Transport
Roads & Maritime
Services

Test method T837

Waterproofing properties of coating materials

NOVEMBER 2012



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 T837 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T837

Waterproofing properties of coating materials

1. Scope

This test method sets out the procedure for determining the waterproofing properties of compounds for application to concrete, masonry, etc., to prevent seepage of water through retaining walls.

2. Preparation of Test Blocks

- (a) Test blocks are prepared from concrete having a compressive strength of approximately 40 MPa in a mould 150 mm by 100 mm by 25 mm with the longest dimension vertical. A 15 mm length of wire approximately 1.6 mm in diameter is cast into the top surface so that 10 mm of the wire protrudes. The concrete is to consist of 1 part normal Portland Cement, two parts of fine sand and 4 parts of nominal 10 mm crushed aggregate.
- (b) Cast sufficient blocks from one mix to provide two blocks for each material under test and two blocks for a control. (Blocks may be pre-cast and stock-piled for future use).
- (c) Allow the blocks to cure in the moulds over night. Remove from the moulds, round off the edges and cure in water for seven days.
- (d) Allow to air dry and finally dry in an air convection oven at a temperature at 105-110°C to constant mass. Store in a desiccator till required for use.

3. Procedure

- (a) Mix a suitable amount of the material under test in the proportions specified and in the manner recommended by the manufacturer.
- (b) Apply the material by brush to two of the blocks in an even film of the thickness recommended by the manufacturer, leaving the top surface surrounding the wire uncoated. Thin spots must be avoided and care taken when coating the edges.
- (c) Suspend the coated blocks by the wire so that they do not come into contact with one another or their surroundings and allow to cure for seven days.
- (d) Determine the mass of the coated blocks and the two uncoated blocks which act as a control.
- (e) Suspend the blocks by means of the wire to within 25 mm of their tops in water for four days.
- (f) At the end of the period of soaking remove the blocks from the water, dry the surface with some absorbent material and re-determine the mass.

4. Calculation and Reporting

Calculate the amount of water absorbed by each block and express the average amount of water absorbed by each pair as a percentage of the average of water absorbed by the two control blocks.