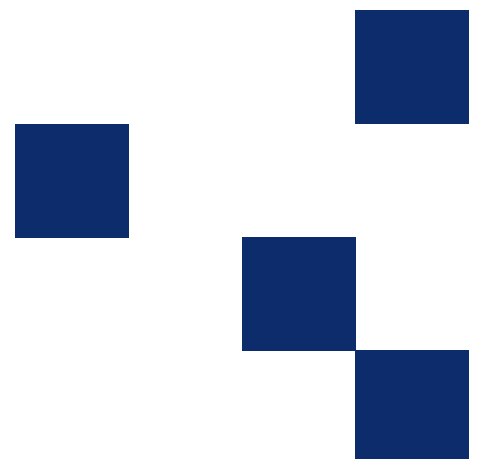




# Test method T734

## Foaming caused by scrap rubber addition to Bitumen

NOVEMBER 2012



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## Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
	All	Reformatted and Revision Summary Added. Safety notes added	D.Dash	July 2012
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 T734 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

# Test method T734

## Foaming caused by scrap rubber addition to Bitumen

### 1. Scope

This test method sets out a procedure for determining the initial volume increase when 20 percent scrap rubber is added to bitumen at 180°C.

### 2. Safety Notes

A poster describing the action to be taken in the event of bitumen burns must be displayed in the laboratory in the vicinity of the bitumen pouring area(s).

Use either tongs or heat resisting gloves when handling hot bitumen. Loosen or puncture lids before heating containers. Examine cold samples for signs of water. Remove all visible water. Wear spectacles when heating samples suspected of containing water. Cleaning solvents such as toluene may be toxic, handle such solvents in a fume cupboard, consult safety data sheet.

### 3. Apparatus

- (a) 600 mL Beaker.
- (b) Marking crayon or liquid paper.
- (c) Balance, accurate to 0.1 g.
- (d) Thermometer to 200°C by 1°C suitable for stirring.
- (e) Hot plate set to maintain the bitumen at temperatures up to 190°C.
- (f) Stopwatch.

### 4. Materials

Class 170 Bitumen, conforming to the specification in MR Form No. 337.

### 5. Preparation

- (a) Calibrate the beaker by marking externally, by volume, each 50 mL by adding successive 50 mL portions of water.
- (b) Follow Test Method T730 to obtain a representative sample of  $40 \pm 0.5$  g.

### 6. Procedure

- (a) Weigh of the rubber sample into a paper cup or paper boat to 0.1 g.
- (b) Weigh four times the mass determined in (a) of the bitumen into the calibrated beaker to the nearest 2 g.
- (c) Heat the bitumen to 180°C.
- (d) Add the weighed scrap rubber over a period of  $60 \pm 5$  seconds with rapid stirring with the thermometer to wet the rubber particles.
- (e) Note the maximum volume reached to the nearest 10 mL.

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## 7. Calculations

$$\text{Percentage Volume Increase} = \frac{\text{Maximum Volume}}{200} \times 100$$

## 8. Reporting

Report the percentage foam to the nearest 5%.

**Note:** If a specification quotes a rubber addition of other than 20% this method may be used provided the appropriate adjustments are made and the deviations are clearly noted in the report.