
Methods of testing bitumen and related roadmaking products

Method 32: Determination of pH of bituminous emulsions

1 SCOPE

This Standard sets out a procedure for determination of pH of bituminous emulsions with a pH meter.

This method is also applicable to the determination of pH of surfactant solutions.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

2300 Methods of chemical and physical testing for the dairying industry

2300.1.6 Method 1.6: General methods and principles—Determination of pH

BS

2586 Specification for glass and reference electrodes for the measurement of pH

3 PRINCIPLE

A pH meter and electrode are calibrated using standard buffer solutions. The pH value of the emulsion test sample is then determined.

4 APPARATUS

The following items of apparatus are required:

- (a) *pH meters*—readable to 0.1 pH unit or better.
- (b) *Electrodes*—capable of quick and accurate response when measuring high and low pH. Combined glass electrodes have been found to be suitable.

NOTES:

- 1 The electrode should be robust and resistant to the cleaning solvents.
 - 2 Electrodes should be stored and maintained in accordance with the manufacturer's instructions.
 - 3 Electrodes complying with BS 2586 have been found to be suitable.
- (c) *Container*—suitable container of at least 100 mL capacity which allows electrode immersion to a depth of at least 30 mm.
 - (d) *Thermometer*—a suitable thermometer capable of measuring the nominated temperature within $\pm 2^\circ\text{C}$.