

Australian Standard®

Methods of testing bitumen and related roadmaking products

Method 29: Determination of breaking behaviour by setting time

1 SCOPE This Standard sets out a method for determining the setting time category of a mixture of aggregate and bituminous emulsion and subsequent classification of the emulsion.

2 REFERENCED DOCUMENT The following document is referred to in this Standard:

AS

1152 Specification for test sieves

3 PRINCIPLE The emulsion is mixed in a prescribed manner with a standard aggregate mixture with the onset of breaking determined by observation of change in physical characteristics of the mixture.

4 MATERIALS Three types of crushed aggregates are required.

Each aggregate, sieved to pass a 9.5 mm sieve and retained on a 4.75 mm sieve, shall be washed, dried and stored in the laboratory in which it is to be used.

Batches of 500 g each shall be prepared as follows:

- (a) 400 g dolerite.
- (b) 50 g white quartz (indicator).
- (c) 50 g limestone (indicator).

NOTE: The materials indicated above are described in Appendix A.

5 APPARATUS The following apparatus is required:

- (a) *Balance* A balance of at least 2 kg capacity, accurate to 0.5 g.
- (b) *Glass beaker* A glass beaker of 100 mL capacity, with lip and glass stirring rod.
- (c) *Non-metallic spatula* A non-metallic spatula with a blade approximately 19 mm wide, rounded at both ends.
- (d) *Porcelain evaporating dish* A porcelain evaporating dish of approximately 230 mm diameter.
- (e) *Sieves* Two sieves, one having an aperture size of 4.75 mm and another having an aperture size of 9.5 mm, both complying with AS 1152.
- (f) *Stopwatch or clock* Stopwatch or clock with seconds display.