
Methods of testing bitumen and related roadmaking products

Method 28: Determination of stone coating ability and water resistance

1 SCOPE

This Standard sets out a method for estimating whether bituminous emulsion can coat an aggregate uniformly and thoroughly. It also provides a method of estimation of how well the coating can withstand the stripping effect of water.

2 REFERENCED DOCUMENT

The following document is referred to in this Standard:

AS
1152 Specification for test sieves

3 APPLICATION

This method is applicable to both dry and damp aggregates and provides a means of evaluating a cationic emulsion for plant mix work, either for immediate laying or for stockpiling.

4 PRINCIPLE

The emulsion is mixed in a prescribed manner with a standard aggregate mixture, which is then visually examined for coating. Two 'indicator' aggregates are used since their light colour facilitates stone coating assessment. After a curing period, the coated aggregate is sprayed with water and visually examined to assess the total proportion of surface area covered with binder.

5 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 and dried.

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.