

TECHNICAL BULLETIN #14

SAMlcoat WX

Aggregate Precoat Emulsion

SAMI Bitumen Technologies

12 Grand Ave
Camellia NSW 2142
PO Box 163
Granville NSW 2142
Australia
Telephone: 02 9638 0150
Facsimile: 02 9638 4983

Introduction

The life of many seals is significantly reduced through the loss of aggregate in the first 12 months. The use of a precoat, whose performance has been tested with the particular sealing aggregate will help to eliminate this problem where the stripping is not caused by lack of binder application rate.

Description

SAMlcoat WX is a specially formulated bitumen emulsion aggregate Precoat. It provides optimum performance and is suitable for most aggregates, and is a more "environment-friendly" precoating product.

The Mechanism of Stripping

There are three primary causes for stripping, other than the lack of binder volume. These are:

- 1 water penetrating between the bitumen film and the aggregate surface and preferentially wetting the aggregate surface.
- 2 the binder failing to "wet" the aggregate surface due to surface contamination, primarily dust particles.
- 3 the binder failing to provide ACTIVE ADHESION with the aggregate surface due to incorrect polarity of this surface.

Why SAMlcoat WX Reduces Stripping

SAMlcoat WX is designed to effectively correct these primary causes for stripping.

- a) most aggregates used in road construction are to some degree hydrophilic. The residue in SAMlcoat WX provides a surface layer on the aggregate, protecting the adhering bitumen from attack by water.
- b) SAMlcoat WX will penetrate and wet the surface dust layer, binding this to the aggregate and allowing the emulsion to fully wet the aggregate surface.

Advantages using SAMlcoat WX

- Environmentally safer than regular precoats
- Stains the aggregate with dark colouration which will not wash off with water.
- No offensive smell.

Use

SAMlcoat WX is supplied ready to use and an application rate of approximately 12 - 13 litres per tonne of aggregate is the approximate usage rate, however this will vary depending on the type and source of aggregate to be coated.

Samicoat WX's Performance

SAMlcoat WX has proven to be effective with more than 80% of local aggregates

- SAMlcoat WX provides stockpile life up to 1-2 months. After this time aggregate may require retreatment.
- Equally effective on surface saturated dry, dry dusty or clean aggregates.
- An application rate of 11-14 litres per tonne of aggregate has been found to be effective on most aggregates.
- Long storage life in sealed containers, in excess of 9 months.
- Precoated aggregates may be affected by rain if the "breaking" of the Precoat has not been completed. Should rain occur within 3-4 hours of precoating, then retreatment will be necessary.

Handling Precautions

There are no special requirements in handling SAMlcoat WX.

- Excessive skin contact - wash with soap and water;
- Eye contact - wash with water
- Inhalation - no special precaution
- Spillage - soak up with sand, straw or sawdust.

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