



Bituaqua Polymer Prime Coat*



Protect Environment

Always Think

Green



Anionic bitumen emulsion polymer prime coat

Uses

The major purpose of prime coat is to protect the underlying layers from wet weather by providing a waterproofing layer, Additional benefits of prime coat is to stabilizing or binding the surface fines together and promoting excellent bond to the HMA layer. Can be use as surface seal coat to protect asphalt top surface, excellent waterproof and high softening point, with anti-stripping properties.

Advantages

- Penetrate rapidly into the absorbent surface and bind the granular material together.
- Provides waterproofing and reduce the water absorption.
- No aggregate stripping, and plug capillaries.
- Can be use as surface seal coat, high softening point > 60 °C
- Money and time saving is achieved, as no heating is required, protect environment.
- Does not affect the base bitumen properties
- Provide excellent bonding between the base and the next course, and with aggregates.

Compliance to ASTM / BS / AASHTO Standards

ASTM D140, ASTM D244, ASTM D977, BS 434
AASHTO M-140, AASHTO D242-38

Description

Bituaqua Polymer Primer Coat* is an Anionic polymer modified bitumen emulsion; with waterproofing properties, it is supplied as brown liquid.

The term anionic is derived from the migration of particles of asphalt under an electric field, the droplets migrate toward the anode (Positive electrode), and hence the emulsion is called anionic, in an anionic emulsion, there are billions and billions of asphalt droplets with emulsifying agent at the water asphalt interface. The tail portion of the emulsifying agent aligns itself in the asphalt while the positive portion of the head floats around in the water leaving the rest of the head negatively charged and at the surface of the droplet. This imparts a negative charge to all the droplets. Since negatives repel each other, all the droplets repel each other and remain as distinct asphalt drops in suspension.

Properties

Appearance	: Brown liquid
Residue	: 55 - 62 %
Saybolt Furol viscosity	: 20 Sec. – 30 Sec. @ 25 °C
Softening point of dry film:	> 60 °C
Dry film penetration	: 60/70
Particle size	: 5 – 6 microns
Settlement 5 days	: < 3%
Nature	: Anionic (Alkaline)
pH value	: 9 – 12
Setting time at 30 °C	: RS-1P
Initial set – hours	: 2
Final set – hours	: 5

Surface Preparation

Bituaqua Polymer Prime Coat* can be applied in some situations without any preparation. However, the beneficial effects will be reduced by an extremely dry material, the presence of highly compacted areas, potholes, and high spots. To optimize the performance of **Bituaqua Polymer Prime Coat***, the following steps should be employed:

Grading

Using a road grader, an angled dozer, or shovels and rakes, remove, mix and replace the top 50 to 150 mm (2 to 6 in.) of material. Insure that the surface is free from local high spots and potholes, and that the material is evenly mixed and distributed to avoid segregated pockets of coarse or fine gradation. In the case where planning section is not required, the top surface should be scarified for 12.5 to 25 mm

Watering

Water should be applied 2 to 12 hours before priming if required.

Application

The prime coat is sprayed at about 0.65 – 1.75 Kg. / m², and 0.20 – 0.65 Kg. / m² as top seal coat. Do a test area to check the level of penetration first. Adjust spray temperature if necessary. Spray using a standard emulsion sprayer that is properly calibrated.

Allow penetrating and drying. Usually traffic should not be allowed on to this for 24 hours but if traffic must use the road a thin layer of sand can be spread. Final surfacing may be done next day.

