ULTRA PRIME COAT

Specification (ASTM D977) SS-1h
(Anionic Bitumen Emulsion - Prime Coat)

DESCRIPTION

Ultra Prime Coat consists of an application of low viscosity asphalt emulsion to an absorbent surface or granular base, in preparation for an asphalt surface course. The purpose of Prime Coat is to protect the underlying layers from weather effect by providing temporary waterproofing layer. It increases the bond strength at the interface between a compacted base and asphalt layer.

Ultra Prime Coat is an anionic bitumen emulsion; 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 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. It is available in three grades, rapid set, medium set & slow set as per requirement of temperature.

BENEFITS

- Environment friendly as it contain no emission of green house gases such as kerosene or diesel/ petroleum etc.
- Low cost treatment significantly increases bond strength between pavement layers.
- Increases pavement structural strength and fatigue life.
- Penetrate readily into the absorbent surface and bind the granular material together.
- Plug capillary voids
- Does not affect the base bitumen properties.
- Provide protection from wind, water and traffic erosion.
- Partially water proof the treated area to make them resistant to water erosion.
- It can be applied on damped aggregate/surface reducing the fuel required for drying aggregate.
- Usable at ambient temperature which saved heating cost.
- Being water base, it has no flash point/ not flammable or explosive.

STANDARD COMPLIANCE

ASTM D140, ASTM D244, ASTM D977
BS 434AASHTO-M140,
AASHTOD242-38

PROPERTIES

Appearance	Brown Liquid
Residue	57-62%
Saybolt,Furol Viscosity	20 Sec. -30 Sec, @ 25 °C
Particle Size	5-6 microns
Settlement 5 days	<3%
Nature	Anionic (Alkaline)
Ph Value	9-12
Setting time at 30 °C	Completely set in 24 hours.
Initial set-hours	6
Final set-hours	24

SPECIFICATION SS-1 (ASTM-D977)

	Min	Max
Solubility by Residue%	97.5	----
Penetration of Residue 100gm 5 sec @ 25*C	100	200
Ductility of Residue 5 cm/min.cm (25*C)	40	----
Viscosity Saybolt Fural at 25*C	20	
Residue by Distillation	57	----

SURFACE PREPARATION

Prior to the application of the Ultra Prime Coat, all loose materials shall be removed from the surface and the same shall be cleaned by means of approved mechanical sweepers or blowers and/ or sand brooms, until it is as free from dust as is deemed practicable. No traffic shall be permitted on the surface after it has been prepared to receive the Prime Coat material. Primed surface shall be kept undisturbed, so that the bitu primer travels beneath and leaves the top surface in tacky condition. No asphaltic operations shall start on a tacky/wet condition.

WATERING

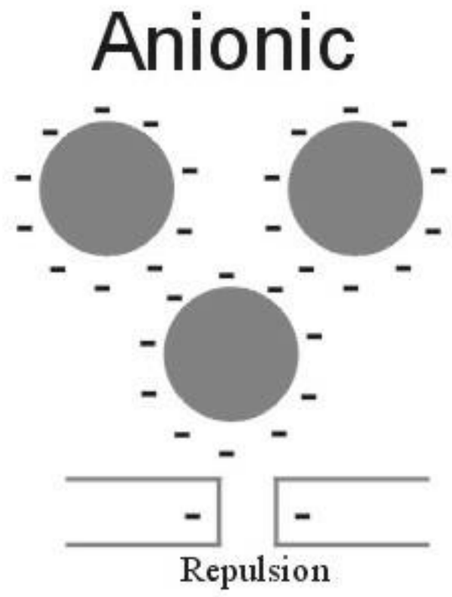
Water should be applied 2 to 12 hours before priming if required.

APPLICATIONS

Ultra Prime Coat is sprayed at about 0.65 1.75 Kg/ m^2. Do a test 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.

For very tight pavement, dilution with water is possible, do not add more than 30% water, always add water to emulsion and not emulsion to water.



PERCAUSIONS /LIMITATIONS

Avoid skin and eye contact, in case of contact, use plenty of water and seek medical advice.

Ultra Prime Coat shall not be applied when the ambient temperature is below 10 °C (50 °F) or when rain is imminent.

PACKING

218 Kg Drum, or Bulk supply.

STORAGE

Ultra Prime Coat A should be kept within the range of 5 °C to 50 °C.

Our production facility at Pakistan is ISO 9001:2008 ISO 14001:2004 by BUREAU VERITAS and UKAS Management