



ULTRA TACK COAT

Specification (ASTM D977) Anionic Bitumen Emulsion Tack Coat RS-1

DESCRIPTION

Ultra tack coat provides an excellent bond between the existing pavement and new overlays or patches. It is applied on the road surface prior to placing the new hot mix asphalt in order to form a monolithic pavement structure. Tack coat is a bonding agent which is a thin application of asphalt emulsion between hot mix asphalt layers designed to create a strong adhesive bond without slippage.

Ultra tack 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.

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.
- Fast dry time as compared to cut back asphalt.
- Provide excellent adhesion.
- Penetrate deeply due to small particle size.
- Water resistant and enhances shedding of water.
- Less consumption as compared to cut back.
- No bleeding effect in hot weather.
- Increases pavement structural strength and fatigue life.

- Usable at ambient temperature which saved heating cost.
- Being water base, it has no flash point/ not flammable or explosive.
- Easy to store even in direct to sunlight. Drums will not expand or burst.
- Do not pose any health risk to workers.

STANDARD COMPLIANCE

ASTM D140 Practice for sampling bitumen.

ASTM D244 Test methods for emulsified asphalts.

ASTM D977 Specification for emulsified Asphalt.

BS 434 AASHTO M-140, AASHTO D242-38

PROPERTIES

Appearance	Brown Liquid
Residue	55-62%
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	SS-1
Initial set-hours	4
Final set-hours	8

SPECIFICATION SS-1 (ASTM-D977)

Solubility by Residue%	Min	Max
	97.5	-----
Penetration of Residue 100gm 5 sec @ 25°C	100	200
Ductility of Residue 5 cm/min.cm (25°C)	40	-----
Viscosity Saybolt Furol at 25°C	20	
Residue by Distillation	55	-----

SUAPPLICATIONS

The tack coat is sprayed at about 0.30 0.60 Kg/ m². Adjust spray temperature if necessary. Spray using a standard emulsion sprayer that is properly calibrated. The Ultra Tack Coat is very thin layer.

The hot mixture placed on top should soften the tack coat layer allowing it to partially fill surface voids in the hot mix. So that when compaction occurs it becomes partially interlocked with the hot mix layer.

SURFACE PREPARATION

Prior to the application of the tack 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 Bitu tack -coat Ultra tack coat provides an excellent bond between the existing pavement and new overlays or patches.

No asphaltic operations shall start on a tacky condition.

PERCAUTIONS /LIMITATIONS

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

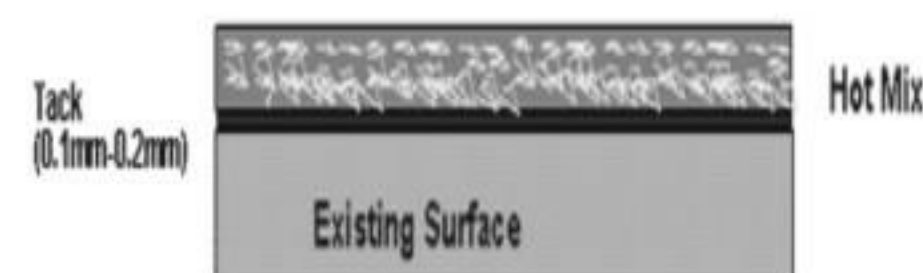
Ultra tack coat shall not be applied when the ambient temperature is below 10 °C (50 °F) or when rain is imminent.

PACKING

218 Kg Drum or Bulk supply.

STORAGE

Ultra tack-A should be kept within the range of 5 °C to 50 °C.



ASPHALT EMULSIONS

- Save Money
- Save Environment
- Save Energy
- Save Time
- Save Workers

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