

Product Description

Liquid Bitumin Slow Setting Grade is a Bitumen Emulsion with low viscosity, extended setting time and stability with cement that makes it ideal for Prime coat and seal coat application. The liquid is designed to react slowly with aggregate and penetrate into miniature pores of sub-base.

Uses

- Mostly suited for Prime coat application
- Ideal for Wet mix Macadam (WMM) / Water bound Macadam(WBM) surfaces.
- Recommended for Soil stabilization and Cold Recycling applications.

Advantages

- Easy to apply
- Good adhesion and wetting to the substrate.
- Low temperature curing allows binder to penetrate into sub-base
- Prevent water ingress of underground water into pavements by plugging the capillary voids
- Non-Flammable and less hazardous and safer to use.

Application Procedure

Surface Preparation

Immediately before applying the bituminous material, all loose dirt and other objectionable material shall be removed from the surface with a power brush. When required, a light application of water shall be made just before the application of bituminous material.

The prime coat is required if it will be at least 7 days before the asphalt mixture is constructed on the underlying (base course, etc.) compacted material.

Application

If the liquid is procured in barrels, each barrel must be laid on its side and rolled gently, to and fro, to agitate the liquid to counter any minor settlement that may occur during storage. If the liquid has been stored at the bulk, it may gently be agitated through circulation, prior to application.

Slow setting SS 1 grade is a oil based Bitumen emulsion primarily used for Prime coat applications with a minimum bitumen content of 50 %. It is black in colour and free flowing at ambient temperatures. The liquid is designed to react slowly with aggregate to allow penetration into the substrate.

SS1 is a special penetration Invert Bitumen Liquid conforming to SABS:1260 -1979 specification for prime coat application.

Slow setting SS 2 grade is a water based Bitumen emulsion, specially recommended for road maintenance applications with a minimum bitumen content of 60 %. It is chocolate brown in colour and free flowing at ambient temperature. It is designed to suit for maintenance work such as premix seal coat and slurry coat.

Seal coat (or protection coat or fog seal) is an application similar to Tack coat, which is used to renew old asphalt surfacings which, for example suffer from dryness, cracks or surface voids.

Coverage

Recommended rate of application is 2.5 to 5 Kg per 10 m² area.

Packing

200 kg barrel or as bulk.



Technical Information

Properties	Test Method	SS 1	SS 2
Residue on 600 micron IS sieve, percent by mass, Max	IS 8887:2004	0.05	0.05
Viscosity by Saybolt Viscometer, seconds: 1) At 25° C 2) At 50° C	IS 3117	- 20 - 100	- 100 - 300
Coagulation at low temperature	IS 8887:2004	NIL	NIL
Storage Stability after 24 hrs, percent, Max	IS 8887:2004	2	1
Particle charge	IS 8887:2004	Weak Positive	Positive
Stability to mixing with cement (Percent Coagulation), Max	IS 8887:2004	2	2
Miscibility with water	IS 8887:2004	-	No Coagulation
Test on residue: 1) Residue by evaporation, %, Min 2) Penetration 25 °C/100 g/ 5 sec 3) Ductility 27° C/cm, Min 4) Solubility: In trichloroethylene, percent by mass, Min	IS 8887:2004 IS 1203 IS 1208 IS 1216	50 60-350 50 98	60 60-120 50 98
Distillation in percent, by volume: 1) At 190 ° C 2) At 225 ° C 3) At 260 ° C 4) At 315 ° C	IS 8887:2004	20-55 30-75 40-90 60-100	- - - -
Water Content, percent by Mass, Max	IS 8887:2004	20	-

Storage

SS 1 and SS 2 are preferred to be stored as emulsions in bulk tanks. Vertical tanks that minimise the surface area of liquid are preferred to horizontal tanks. Do not allow a bituminous emulsion to either freeze or boil – it will break. Storage temperature should not be allowed to fall below 10°C or exceed 85°C (except for some specialty emulsions that may be heated as high as 90°C under strictly controlled conditions)

Safety precautions

Wear all necessary safety goggles, gloves, shoes, etc. while handling emulsion. Any splashes on the skin or eyes, seek medical attention immediately. Bitumen emulsion should be used at ambient temperatures and use without diluting with any solvent. If the liquid is procured in barrels, each barrel must be laid on its side and rolled gently, to and fro, to agitate the liquid to counter any minor settlement that may occur during storage. If the liquid has been stored at the bulk, it may gently be agitated through circulation, prior to application.