

TECHNICAL DATA SHEET

Cutback Bitumen-MC3000

Description

Cutback Bitumen (Liquid Bitumen) is Bitumen dissolved in a petroleum solvent. Typical solvents include naphtha (gasoline) and kerosene. The type of solvent controls the curing time and its ultimate strength.. while the amount of solvent affects the viscosity of the cutback Bitumen.

Solvent is added to reduce the viscosity of the bitumen temporarily so that it can penetrate pavements more effectively or to allow spraying at temperatures that are too cold for successful sprayed sealing. The solvent bitumen will evaporate after the application to leave the remaining material similar in hardness to that of the original bitumen.

Technical Data

DESIGNATION	MIN	MAX
Kinematic viscosity at 60 ^o C (140 ^o F), centistokes,	3000	6000
Flash point (Tag. Open Cup), [°C (°F)]	66(150)	...
Water percent	...	0.2
Distillation test:		
Distillate percentage by volume of total distillates to 260 ^o C (500 ^o F)	0	15
Distillate percentage by volume of total distillates to 316 ^o C (600 ^o F)	15	75
Residue from distillation to 360 ^o C (680 ^o F) percent volume by difference	80	...
Test on residue from distillation:		
Viscosity at 60 ^o C, (140 ^o F), P or	300	1200
Penetration, 100g, 5sec, at 25 ^o C (77 ^o F), [dmm]	120	250
Ductility, 5cm/min, at 25 ^o C (77 ^o F), cm or	100	...
Ductility at 15.5 ^o C (60 ^o F), cm (See "Note 1")	100	...
Solubility in Trichloroethylene, percent by weight, [%]	99	...

Features

The advantage cutbacks have over emulsions is a much higher residual Bitumen percent, typically over 80 percent. This compares with just over 65 percent for Bitumen emulsions. The result is more Bitumen cement left on the roadway after curing, for the same volume of binder applied.

Applications

- **Priming and Tack Coating** - Cutback bitumen's suitable for priming are also used for tack coats, which are applied to an underlying surface to help with the adhesion of subsequent asphalt layer. A typical application rate is between 0.2 and 0.4 L/m²
- **Primer Sealing** - Where temperatures are too cool for an effective priming operation, or where traffic is likely to upset a primed surface before the final seal can be sprayed, a primer seal can be used to give adequate protection of the pavement for periods of up to 6 to 12 months. Cutback bitumen's suitable for primer sealing can also be used in the manufacture of pre-mix asphalt, which is used in patch repairs.
- **Sprayed Sealing** - Cutback bitumen's are used extensively in sprayed sealing applications, particularly in cooler weather where they provide improved initial stone retention due to their lower viscosity.

Packing

Steel drums (must be palletized)

Health & Safety

- Wear suitable personal protective equipment (PPE) at all times. Full skin protection is required to avoid accidental burns when transferring or handling hot bitumen.
- Always prevent contact between water and hot bitumen by checking the contents of the previous load before loading bituminous products into tankers and by following procedures to avoid violent boil-over of tanks.
- Avoid exposure to fumes by standing back on the gantry or upwind until the vapours have dispersed.
- Minimise bitumen fume by heating bitumen and asphalt products to the recommended temperatures.
- Minimise the use of diesel when cleaning equipment as this contributes to the bitumen fume. Cutbacks are sometimes used at a temperature above their flashpoint, so care must be taken regarding the product's flammability. Ensure personnel are well trained in the correct handling procedures

Cleaning

Tools : Clean with Kerosene

Hands : Use a hand cleanser or kerosene followed by soap and water