



GLOBAL ROAD BINDERS

THE BITUMEN PROFESSIONALS

Product Specifications

Especificaciones del producto

Spécifications du produit

especificações do produto

产品规格

- B COTE
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- QDP - ECO FRIENDLY PRIME
- SC-E2

B COTE

Bitumen- Based Stone Pre-coating Fluid

DESCRIPTION

B Cote is a bitumen based cutback blend from selected petroleum derivatives and a chemical adhesion agent.

B Cote is used for pre-coating stone chips in road surfacing seals to improve adhesion between the stone and binder. It is non-tar based and therefore more environmentally friendly.

Can be used with:

- All bituminous binders including bitumen emulsion without the risk of incompatibility problems.
- All local road stone including granite and quartzitic aggregates.

PROPERTIES

B Cote has excellent adhesion even when used with damp or dusty aggregate

B Cote is non –irritating to eyes or skin and odourless after curing

SPECIFICATIONS

BINDER PROPERTIES	REQUIREMENT		TEST METHOD
	MIN	MAX	
Density @25°C, kg/l	0.922	0.928	
Dynamic viscosity @ 25°C, cps	75	120	ASTM D4402
Distillation to 360°C, % v/v to 190°C	0		ASTM D402
225°C	15	55	
260°C	50	75	
316°C	80	95	
Residue from distillation to 360°C, %, v/v	42	48	ASTM D402
Penetration @ 25°C of residue distilled to 360°C, 0.1mm	300	-	ASTM D 5

DIRECTIONS FOR USE

1. Stone for pre-coating should be relatively clean of dust. Slightly damp stone will pre-coat more easily, but the wet stone must be dried out.
2. Add the prescribed quantity of pre-coating fluid (see table below for typical rates) to a measured quantity of aggregate. Mix with front end loader or concrete mixer until uniformly coated
3. After pre-coating, protect the stockpile against rain, otherwise the pre-coat will wash off. Allow the chips to dry for at least 3-4 days before use. Unlimited stockpile life, but avoid dust contamination.

Typical application rates for different stone sizes (l/m ²)				
Stone size	6.7mm	9.5mm	13.2mm	19.0mm
B- Cote	14 - 18	13 - 17	12 - 16	11 - 15

MSP 1™

Inverted Bitumen Emulsion Prime

DESCRIPTION

MSP 1™ is an inverted bitumen emulsion manufactured from bitumen and a cutback medium.

APPLICATIONS

MSP 1™ is specially designed as a prime for non-bituminous bases prior to surfacing. The product is ideal for priming:

- Natural gravel, crushed stone and stabilized bases.
- Small areas by hand sprayer
- Damp bases and during inclement weather.

PROPERTIES

MSP 1™ penetrates the top 10mm of the base with the aid of the cutter, whilst depositing a film of bitumen on the surface to provide adhesion between the base course and the new surfacing. Other benefits of MSP 1™ are:

- Faster penetrating than MC 30.
- Reduced solvent emissions vs cutbacks.

SPECIFICATIONS

MSP 1™ conforms to SABS 1260 specification for inverted bitumen emulsion.

EMULSION PROPERTIES	REQUIREMENT		TEST METHOD
	MIN	MAX	
Kinematic viscosity @50°C, SFs	25	40	ASTM D88
Water content, % v/v	-	20	ASTM D402
Residue from distillation to 360°C, % v/v	50	-	ASTM D402
Penetration @ 25°C of residue distilled to 360°C, 0.1mm	90	180	ASTM D5
Distillation to 360°C, % v/v:			
To 190°C	25	55	ASTM D402
225°C	45	75	
260°C	60	90	
316°C	80	100	

DIRECTIONS FOR USE

1. The surface of the base should be well swept and slightly dampened with water before priming.
2. Apply with a hand sprayer at ambient temperature or calibrated distributor at a binder spray temperature of 60°C and a minimum road surface temperature of 10°C and rising.
3. Drying time will depend on the porosity of the base and weather conditions. The prime must be allowed to dry before opening to traffic or proceeding with the construction of the surfacing.

QDP (Quick Drying Prime) – Eco Friendly Prime Emulsion Based Quick Drying Prime

DESCRIPTION

QDP (Quick Drying Prime) can be used as a non-flammable, low viscosity emulsion prime with reduced drying time, formulated with a special blend of BSS emulsifiers.

USES

QDP (Quick Drying Prime) can be used on natural gravel, crushed stone and cement treated base course materials. Due to its low viscosity

PROPERTIES

QDP (Quick Drying Prime) reduces the use of hydrocarbon solvents and surfaces primed with this material can usually be overlaid within 24hours. The product is brown in colour immediately after application, but changes to a black colour within minutes after application. Quicker penetrating MC30.

SPECIFICATIONS

EMULSION PROPERTIES	SPECIFICATIO N	TEST METHOD
Water content % m/m	42-46	ASTM D244
Dynamic viscosity @ 25°C	50-100	ASTM D 4402
Residue on sieving g/100 ml 710µm Particles > Particles > 150µm	<0.10 <0.25	SABS 548
Storage stability % 1 day 7 days	<1 <5	NF T 66-022
Rupture Index	>120	NF T 66-017
Particle charge	Positive	SABS 548

DIRECTIONS FOR USE

1. For hand-spray application, the **QDP (Quick Drying Prime)** can be applied cold. Theoretically, for application by binder distributor, **QDP (Quick Drying Prime)** can be cold applied – however, depending on the type of equipment, best results are obtained if the product is heated to a maximum temperature of 45°C.
2. **QDP (Quick Drying Prime)** can be applied at a minimum road surface temperature of 10°C and rising.
3. Typical application rates are 0.8 to 1.2l/m².
4. If a chip seal is to be placed over the primed surface, a minimum curing period of 24 hours is recommended.
5. Do not wet the base course prior to the application of **QDP (Quick Drying Prime)**.

SC - E²

Elastomer Modified Bitumen Emulsion

DESCRIPTION

SC - E² is a medium viscosity cationic spray grade bitumen emulsion modified with 5% net SBR latex.

USES

SC - E² is used mainly in cold/wet climates for resealing roads with surface cracks < 5mm without pre-treatment. Also used in new construction or reseals where traffic accommodation is not a problem.

PROPERTIES

SC - E² has much enhanced residual binder properties while the lower viscosity of the emulsion improves the flow of the binder into lightly cracked surfaces without the risk of run off on steep inclines. Can be stored for long periods at ambient temperature without risk of polymer thermal degradation.

SPECIFICATIONS

SC - E² conforms to specifications modified emulsion for surface seals.

EMULSION PROPERTIES		REQUIREMENT		TEST METHOD
Mi				
n				
Ma				
Binder content, % m/m		65	68	MB - 22
viscosity @ 50°C, SFs		51	200	
Residue on sieving g/ 100ml	710µ m		0.1	MB - 23
	150µ m		0.5	
Particle charge		Positive		MB24
Sedimentation after 60 rotations		Nil		SANS 309
RECOVERED BINDER PROPERTIES				
Softening Point, °C		55		MB - 17
Elastic recovery @ 15°C		55	-	MB - 4

DIRECTIONS FOR USE

1. No pre-coating of stone necessary. Can be used with slightly damp/dusty stone.
2. Apply with a conventional distributor at a binder spray temperature of 65°C and a minimum road surface temperature of 10°C and rising.
3. No heating of the product during storage; only prior to application. Product should be

circulated and agitated from time to time for short periods only. The residue on sieving value will increase with prolonged storage but should not affect performance of the binder.

4. Open to traffic once sufficient cohesion development has occurred between binder and stone.