



## Technical Data Sheet (TDS)

Bitumen SS1 – Slow Setting Cationic Emulsion  
BASEKIM\*\*

### 1. Product Overview

Bitumen SS1 is a **slow-setting cationic bitumen emulsion** designed for prime coat, tack coat, fog sealing, slurry mix, and cold asphalt production.

Because it breaks slowly, it penetrates deeper into base layers, coats aggregates uniformly, and delivers excellent bonding.

### General Product Information

Parameter	Description
Product Name	Bitumen SS1
Type	Slow Setting Cationic Bitumen Emulsion
Appearance	Dark brown, fluid emulsion
Base Material	Penetration-grade bitumen
Charge	Positive (Cationic)
Producer	Basekim

### 3. Applications

#### Recommended Uses

Application	Purpose
Prime Coat	Deep penetration into granular bases
Tack Coat	Strong bonding between layers
Fog Seal	Surface rejuvenation and sealing
Slurry Seal	Smooth, durable surfacing
Cold Mix Asphalt	Binding in low-temperature mixes
Dust Control	Soil stabilization
Patch Repair	Localized fixes and overlays



## 4. Technical Specifications (Emulsion Phase)

### Emulsion Characteristics

Property	Test Method (ASTM)	Specification
Bitumen Content (%)	D244	57 – 63%
Water Content	D244	Balance
Viscosity @ 25°C (S.F.)	D244	20 – 100 s
pH Value	E70	2.0 – 5.0
Sieve Test (0.85 mm)	D244	Max 0.10%
Particle Charge	D244	Positive
Demulsibility (0.8% NaCl)	D6936	≤ 30%
Storage Stability (24 hrs)	D6930	≤ 1%
Settlement (5 days)	D6930	≤ 5%
Residue by Distillation	D244	Min 55%

## 5. Residue Properties (After Evaporation)

### Residue Characteristics

Residue Property	Test Method	Specification
Penetration @ 25°C	ASTM D5	100 – 200 dmm
Softening Point	ASTM D36	40 – 55°C
Ductility @ 25°C	ASTM D113	Min 40 cm
Solubility in TCE	ASTM D2042	Min 97.5%
Ash Content	ASTM D2939	≤ 1%



## 6. Performance Advantages

### Key Performance Benefits

Feature	Benefit
Slow-breaking emulsion	Deep penetration & better bonding
High stability	Minimal sedimentation during storage
Excellent workability	Easy application in humid/cool climates
Strong adhesion	Suitable for dusty or porous surfaces
Uniform coating	Consistent priming & tack layers
Sprayable viscosity	Ideal for mechanized roadwork

## 7. Packaging Options

### Packaging & Loading

Packaging Type	Net Weight	Typical Loading
Steel Drum	200 kg	80 drums per 20' FCL
IBC Tank	1,000 kg	20 units per 20' FCL
Bulk Tanker	Up to 25 MT	Road tanker delivery
Flexi Tank	20–24 MT	1 unit per container



## 8. Storage & Handling

### Storage Guidelines

Condition	Recommendation
Temperature	5°C – 50°C
Sunlight	Avoid long exposure
Freezing	Must be prevented
Mixing	Gentle agitation before use
Tank Cleanliness	Use clean, non-contaminated tanks

## 9. Health & Safety

### Table 8 – Safety Information

Risk Area	Safety Advice
Skin Contact	Use gloves; wash with soap
Eye Contact	Rinse immediately; seek care if needed
Inhalation	Generally low-risk (water-based)
Protective Gear	Gloves, goggles, long sleeves
Fire Risk	Non-flammable emulsion

## 10. Shelf Life

### Table 9 – Product Stability

Condition	Shelf Life
Closed container, optimal temperature	6 months
Unopened drums	6–8 months
Exposure to extreme heat/cold	Reduces stability



## 11. Quality Assurance

Basekim produces Bitumen SS1 under **ISO-certified systems**, following **ASTM D2397** and related standards.

Each batch is laboratory-tested to ensure consistent viscosity, stability, and residue performance.