📄 **Technical Data Sheet (TDS)**
Bitumen Emulsion K1-40

🔍 Product Identification

- **Product Name**: Bitumen Emulsion K1-40
- **Bitumen Type**: Cationic Rapid-Setting Bitumen Emulsion
- **CAS Number**: 8052-42-4
- **HS Code**: 2715.00.90
- **Standard**: BS 434 Part 1: 1984 Class K1-40
- **Appearance**: Chocolate brown, free-flowing liquid at ambient temperature
- **Bitumen Content**: Minimum 40%

🌼 Product Description

Bitumen Emulsion K1-40 is a cationic rapid-setting bitumen emulsion comprising bitumen, water, and an emulsifying agent. Designed for various road construction and maintenance applications, it offers excellent adhesion properties, making it ideal for use as a tack coat, fog seal, and in surface treatments. Its rapid-setting nature allows for quick curing, ensuring minimal traffic disruption.

☑ Key Features

- **Rapid Setting**: Ensures quick curing, reducing downtime.
- **Excellent Adhesion**: Provides strong bonding to various substrates.
- **Cold Application**: Can be applied at ambient temperatures, eliminating the need for heating.
- **Environmentally Friendly**: Water-based formulation reduces environmental impact.
- **Versatile Applications**: Suitable for a range of paving and maintenance tasks.

REFINERY ADDRESS: PERSIAN GULF SPECIAL ECONOMIC ZONE , BANDAR ABBAS-IRAN
WWW.GOLDBITUMEN.COM INFO@GOLDBITUMEN.COM

📊 Technical Specifications

Property	Test Method	Unit	Typical Value	Specification
Viscosity @ 25°C	ASTM D7496	SFS	25	Max 25
Storage Stability (24h)	ASTM D6930	%	0.5	Max 1.0
Sieve Test	ASTM D6933	%	0.05	Max 0.1
Particle Charge	ASTM D244	–	Positive	Positive
Residue by Distillation	ASTM D6997	%	37	Min 37
Penetration @ 25°C	ASTM D5	dmm	100	60 – 200
Solubility in Trichloroethylene	ASTM D2042	%	98	Min 97.5

🛠️ Applications

- **Tack Coat**: Provides a bonding layer between existing pavement and new asphalt overlays.
- **Fog Seal**: Seals minor cracks and rejuvenates aged asphalt surfaces.
- **Surface Dressing**: Enhances skid resistance and waterproofing of road surfaces.
- **Sand Seal**: Improves surface texture and seals fine cracks.
- **Patching and Repair Works**: Suitable for pothole repairs and maintenance.

📦 Packaging & Storage

- **Form**: Liquid emulsion
- **Packaging Options**:
  - 200 kg new steel drums
  - IBC tanks
  - Bulk in bitutainers or tankers
- **Storage Conditions**:
  - Store in clean, dry, and well-ventilated areas.
  - Maintain storage temperatures between 5°C and 35°C.
  - Avoid freezing or prolonged exposure to high temperatures.
  - Gently agitate before use to ensure homogeneity.
- **Shelf Life**: 6 months under recommended storage conditions.

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⚠️ Health, Safety & Handling

- **Personal Protective Equipment (PPE)**: Wear gloves, safety goggles, and protective clothing during handling.
- **Avoid Skin and Eye Contact**: In case of contact, rinse immediately with plenty of water.
- **Do Not Ingest**: If swallowed, seek medical attention immediately.
- **Ventilation**: Ensure adequate ventilation during application.
- **Spill Handling**: Contain and collect spillage with non-combustible absorbent materials.
- **Disposal**: Dispose of in accordance with local regulations.
- **Material Safety Data Sheet (MSDS)**: Refer to MSDS for comprehensive safety information.

🌎 Compliance & Standards

- **BS 434 Part 1: 1984 Class K1-40**
- **ASTM D244, D5, D113, D2042**
- **ISO 9001:2015** Certified Quality Management
- **ISO 14001:2015** Environmental Compliance
- **REACH & RoHS** Compliant

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