



# BITUMEN MC-70

## Technical Data Sheet (TDS)

**Product Type:** Medium Curing Cutback Bitumen  
**Standard Reference:** ASTM D2027 / AASHTO M82  
**Grade:** MC-70

### 1. Product Description

Bitumen MC-70 is a medium curing cutback asphalt produced by blending penetration grade bitumen with a controlled amount of petroleum solvent (typically kerosene-type diluent). The addition of solvent reduces viscosity, allowing the material to be applied at lower temperatures without preheating to high levels.

After application, the solvent evaporates, leaving behind a residual asphalt binder that provides adhesion and waterproofing properties. MC-70 is widely used for prime coating and surface preparation in road construction.

### 2. Technical Specification (ASTM D2027)

Property	Test Method	Unit	Specification
Kinematic Viscosity @ 60°C	ASTM D2170	cSt	70 – 140
Flash Point (Tag Open Cup)	ASTM D3143	°C	≥ 38
Distillation Test	ASTM D402	% Vol	—
To 225°C	ASTM D402	%	—
To 260°C	ASTM D402	%	20 – 60
To 316°C	ASTM D402	%	65 – 90
Residue from Distillation	ASTM D402	%	≥ 55
Penetration of Residue @ 25°C	ASTM D5	0.1 mm	120 – 300
Ductility of Residue @ 25°C	ASTM D113	cm	≥ 100
Water Content	ASTM D95	%	≤ 0.2

*Note: Distillation limits may vary slightly depending on project specification.*

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### 3. Typical Physical Characteristics

- Appearance: Dark brown to black liquid
- Odor: Petroleum solvent odor
- State at Ambient Temperature: Liquid
- Solvent Type: Medium volatility petroleum distillate
- Flammability: Flammable liquid

### 4. Performance Characteristics

Bitumen MC-70 provides:

- Good penetration into granular base surfaces
- Strong bonding between base and asphalt layer
- Reduced dust and surface sealing
- Ease of spraying at moderate temperatures
- Controlled curing rate

The medium curing rate ensures adequate working time while allowing proper solvent evaporation under normal environmental conditions.

### 5. Applications

- Prime coat for road base preparation
- Surface treatment and dust control
- Penetration macadam construction
- Temporary patching and maintenance works
- Asphalt surface conditioning

### 6. Recommended Application Conditions

- Apply on dry, clean surface
- Typical spray temperature: 50 – 80°C
- Ensure adequate ventilation during application
- Allow sufficient curing time before overlay

Curing time depends on ambient temperature, wind, and surface conditions.

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## 7. Packaging Options

Bitumen MC-70 is supplied in:

- Bulk tanker trucks
- Bitumen tank containers
- Steel drums (upon request)
- IBC tanks (subject to agreement)

## 8. Storage and Handling

- Store in well-ventilated area away from ignition sources
- Keep containers tightly closed
- Avoid exposure to open flames or sparks
- Recommended storage temperature: below 50°C
- Use explosion-proof equipment when handling

## 9. Safety Information

- Classified as flammable material
- Avoid inhalation of vapors
- Use protective gloves, goggles, and appropriate PPE
- In case of fire, use foam, dry chemical, or CO<sub>2</sub> extinguishers
- Refer to MSDS for complete safety information

## 10. Compliance and Standards

Bitumen MC-70 complies with:

- ASTM D2027
- AASHTO M82
- Relevant regional road authority specifications

Each shipment is typically accompanied by:

- Certificate of Analysis (COA)
- Batch quality control report
- Safety Data Sheet (MSDS)

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