



Technical Data Sheet (TDS)

Bitumen 85/40

Oxidized / Blown Bitumen Grade

1. Product Description

Bitumen 85/40 is a high-quality oxidized (air-blown) asphalt produced by controlled oxidation of selected petroleum bitumen. The air-blowing process increases the softening point and reduces penetration, resulting in a thermally stable, semi-hard industrial binder suitable for waterproofing membranes, roofing systems, pipe coatings, mastics, and protective applications.

This grade offers a balanced combination of heat resistance, adhesion strength, and structural stability. It performs reliably under elevated temperatures while maintaining sufficient flexibility for processing and application.

2. Main Applications

Bitumen 85/40 is commonly used in:

- Roofing membrane manufacturing
- Waterproofing felt production
- Pipe coating systems
- Industrial protective coatings
- Expansion joint fillers
- Bituminous mastics
- Insulation board production
- Adhesive and sealing compounds

3. Technical Specifications

| Property | Specification | Test Method |
|----------------------------------|---------------|-------------|
| Penetration @ 25°C (100g, 5s) | 35 – 45 dmm | ASTM D5 |
| Softening Point (Ring & Ball) | 80 – 90 °C | ASTM D36 |
| Flash Point (Cleveland Open Cup) | Min 250 °C | ASTM D92 |
| Solubility in Trichloroethylene | Min 99.0 % | ASTM D2042 |
| Loss on Heating (163°C, 5h) | Max 0.5 % | ASTM D6 |
| Specific Gravity @ 25°C | 1.01 – 1.06 | ASTM D70 |
| Ductility @ 25°C | Min 1.5 cm | ASTM D113 |
| Spot Test | Negative | AASHTO T102 |

Note: Values may slightly vary depending on production batch but remain within international industrial standards.

4. Physical Characteristics

- Appearance: Solid black material
- Form: Blocks, drums, or meltable bags
- Odor: Slight petroleum odor when heated
- Solubility: Soluble in aromatic solvents

5. Performance Characteristics

- High thermal stability
- Excellent adhesion to metal, concrete, and felt
- Resistant to flow under high temperature
- Good aging resistance
- Low volatility
- Stable during storage and transportation



6. Processing Guidelines

- Recommended heating temperature: 150–180°C
- Avoid overheating above 220°C
- Use indirect heating systems (thermal oil recommended)
- Maintain continuous agitation during melting
- Avoid direct flame contact

Proper temperature control ensures optimal viscosity and prevents degradation.

7. Packaging Options

Bitumen 85/40 is available in:

- 25 kg craft paper bags
- 25 kg meltable polyethylene bags
- 50 kg blocks
- 180 kg steel drums
- Jumbo bags (500–1000 kg)
- Bulk supply upon request

Custom packaging is available depending on export requirements.

8. Storage Conditions

- Store in dry, covered, and well-ventilated areas
- Protect from direct sunlight
- Avoid moisture contamination
- Keep away from ignition sources
- Shelf life: Up to 24 months under proper storage conditions

9. Safety Information

- Use protective gloves and safety clothing when handling hot material
- Avoid inhalation of fumes
- Provide adequate ventilation during heating
- In case of skin contact with hot material, cool immediately with cold water
- Refer to MSDS for full safety details



10. Quality Control

Each batch of Bitumen 85/40 is tested prior to shipment to ensure:

- Compliance with ASTM standards
- Consistent penetration and softening point
- Proper flash point safety margin
- High purity and solubility

Certificates of Analysis (COA) are issued for every shipment.

11. Compliance

This product complies with international industrial standards for oxidized bitumen and is suitable for export to global markets.