



SPECIFICATION OF **OXIDIZED BITUMEN 90/40**



Introduction

BS group oxidized bitumen 90/40 is based on petroleum bitumen which is made by blowing asphalt 60/70 by very hot air. Blown bitumen 90/40 is manufactured from fine 60/70 bitumen in BS group refinery to meet EN and ASTM standard specifications and guarantee high quality products for our clients.

Oxidised Bitumen is shown by R(SP)(PEN) in which SP is Softening and PEN is Penetration as a result R90/40 mean an oxidized bitumen with Softening point=90 and Penetration=40.

Typical properties of oxidized bitumen 90/40

BS group oxidised bitumen 90/40 is made according to BS EN 13304:2009 standard and we guarantee that it meets the following specification requirements:

| Properties | Test Method | Unit | Specification |
|--------------------------------------|-------------------------|----------------------|---------------|
| Specific gravity at 25/25 C | ASTM D70 EN 15326 | (Kg/m ³) | 1.05 approx. |
| Penetration at 25°C | ASTM D5 EN 1426 | mm/10 | 35/45 |
| Softening point °c | ASTM D36 EN 1427 | °C | 85/95 |
| Loss on heating (wt) % | ASTM D6 EN 13303 | Wt. % | 0.2 max |
| Flashpoint c | ASTM D92 EN ISO 2592 | °C | 250 min |
| Solubility in CS ₂ (wt) % | ASTM D4 EN 12592 | Wt. % | 99.5 max |
| Stop test | A.A.S.H.O.T 102 | - | negative |

Applications

Oxidised asphalt 90/40 uses in the chemical, fuel, lacquers, varnishes, paint paper-pulp-board, textile processing, road construction, pavement, civil works, roofing, construction industries; sealing and insulating buildings, adhesive, crack seal and repairmen, construction materials additive, dust-binding, insulating and impregnating agent, make rubber and plastic products. The asphalt R 90/40 products are for paving. also used in asphalt-based paints for corrosion protection of metals, in lining public works structures, adhesives in electrical laminates, base for synthetic turf; typical uses for oxidized bitumen 90/40 used also for water-proof application and corrosion resistance for pipe coating, Portland cement pavement, hydraulic applications, paint manufacturing, caulking, mastics, and damp proofing. Blown bitumen R 90/40 is using insulation and isolation bitumen membrane sheet. Also, Car undercoating Automobile industry is specially required for Blown Asphalt. Vehicle undercoating material is based on Bitumen. Bitumen provides excellent waterproof, dust proof and noise proof for automobile undercoating.

Notice: The oxidized bitumen should be heated double temperature against the softening point to be able to have flow and viscosity.

Hazard Identification

NOT classified as dangerous in accordance with Directive 67/548/EEC or EC 1272/2008.

The main hazards presented by Asphalt relate to the temperature of the material. The following hazards may apply:

- Hot materials may burn the skin.
- Fumes from Asphalt are unlikely to be hazardous when laid in open air situations, but there may be a risk to health by continuous inhalation of high vapor concentrations which might arise in poorly ventilated, confined or semi-confined spaces.
- Asphalt is not a dusty material, but respirable dust may be released by cutting, drilling or planing hardened asphalt. If inhaled in excessive quantities over a prolonged period or extended period, respirable dust can constitute a long term health hazard.

Dusts containing Respirable Crystalline Silica* (quartz) present a greater hazard. Long-term exposure to respirable dust can lead to respiratory system damage and disease. Respirable crystalline silica* has been associated with the lung disease silicosis.

The quartz content of the product will vary, and is related to the type of aggregate used in the production of the asphalt. Advice on the quartz content and other chemical information is available from the supplying unit.

Fire Fighting Measures

Suitable Extinguishing Media: Dry powder, foam.

Unsuitable Extinguishing Media: Do not use water. CO2 is also not suitable.

Special Exposure Hazards in Fire: Hydrocarbon fumes may be released, along with other hazardous combustion products including smoke.

Special Protective Equipment for Fire Fighters: Proper protective equipment including suitable respirators or breathing apparatus must be worn.

Handling and Storage

Handling:

SAFETY HANDLING PRECAUTIONS (when hot)

- Wear suitable protective clothing (heat resistant gauntlet gloves, overalls, protective footwear, face visor)
- DO NOT allow water to contact hot material
- DO NOT exceed the maximum safe heating temperature

If molten material contacts skin:

- DO NOT attempt to remove
- Immerse the affected area in cold running water for at least 10 minutes
- Seek medical advice without delay

This product is hazardous for transportation when carried at temperatures above 100°C.

Storage

Oxidised Bitumen should be kept under cover and away from direct sunlight.

Cleaning

Tools: Clean with kerosene and gasoline.

Hands: Use a hand cleanser or kerosene followed by soap and water.

Availability

BS group Oxidized Bitumen 90/40 is available in:

- New Steel Drums (185 or 200 Kg)
- Melt-able and craft bag
- Craft box