



SPECIFICATION OF BITUMEN 80/100



Introduction

BS group Bitumen Grade 80/100 is a standard penetration grade Bitumen usually used as a paving Bitumen suitable for road construction and other industrial purposes. This grade of Bitumen is mainly used in the manufacture of hot mix asphalt for bases especially in cold climate and wearing courses.

Typical properties of BS group Bitumen 80/100

| Description | Unit | Limit | Test Method |
|-----------------------------------|-------------------|-----------|-------------------|
| Density@25°C | Kg/m ³ | 1000-1050 | ASTM D70 or D3289 |
| Penetration@25°C | mm/10 | 80-100 | ASTM D5 |
| Softening Point | °C | 45-52 | ASTM D36 |
| Ductility@25°C | cm | 100min | ASTM D113 |
| Loss on Heating | wt% | 0.5max | ASTM D6 |
| Drop in Penetration after Heating | % | 20max | ASTM D5 |
| Flash Point | °C | 232min | ASTM D92 |
| Solubility in Trichloroethylene | wt% | 99.0min | ASTM D2042 |
| Spot Test | --- | Negative | A.A.S.H.O.T.102 |
| Viscosity@60°C | P | 1000±200 | ASTM D2171 |
| Viscosity@135°C | cSt | 250min | ASTM D2170 |

Applications

This kind of bitumen is suitable to be used for road construction projects in cold regions. Also, Bitumen Grade 80/100 is used to manufacture asphalt mixes, some grade of bitumen emulsion, cut-back bitumen and modified bitumen.

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 planning 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:

Skin contact with the product should be avoided. Inhalation of fumes should be avoided as far as is reasonably practicable.

If the formation of vapors is a risk, then additional ventilation should be provided. Handle away from sources of ignition and heat. Do not smoke, eat or drink during use.

Storage:

No special requirements. Asphalt is normally used upon receipt.

Refer to the relevant Technical Data Sheet for the specific product.

Cleaning

Tools: Clean with kerosene and gasoline.

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

Availability

BS group Bitumen Penetration Grade 80/100 is available in:

- Bulk
- New Steel Drums (185 Kg) and (150 Kg)
- Polybag