



## SPECIFICATION OF BITUMEN 10/20



### Introduction

BS group Bitumen Grade 10/20 is a type of penetration grade bitumen that is produced by the non-destructive refining of crude oil during petroleum refining.

Bitumen 10/20 is heavy traffic grade which ensures long-term savings as it allows for a thinner pavement design, which uses up to 30% less asphalt than traditional designs, while ensuring extended pavement life. Its penetration grade is between 10 to 20 and its softening point is between 58 to 66°C. It is a commonly used paving grade bitumen as it is suitable for road constructions and repairs and also for the production of asphalt pavements. This grade of bitumen is also mainly used in the manufacture of hot mix asphalts.

### Typical properties of BS group Bitumen 10/20

Here are properties of BS group Bitumen grade 10/20 which is classified by ASTM D946-09

Description	Unit	Limit	Test Method
Density@25°C	Kg/m <sup>3</sup>	1010-1060	ASTM D70 or D3289
Penetration@25°C	mm/10	10-20	ASTM D5
Softening Point	°C	58-66	ASTM D36
Ductility@25°C	cm	100 min	ASTM D113
Loss on Heating	wt%	0.2 max	ASTM D6
Drop in Penetration after Heating	%	20 max	ASTM D5
Flash Point	°C	250 min	ASTM D92
Solubility in Trichloroethylene	wt%	99.1 min	ASTM D2042
Spot Test	---	Negative	A.A.S.H.O.T.102

### Applications

Bitumen 10/20 is used for hot mixed asphalt because of the properties of very strong viscosity compared to other grade.

## 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. CO<sub>2</sub> 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 10/20 is available in:

- Bulk
- New Steel Drums (185 Kg, 210kg, 240kg and 150 Kg)