



## TECHNICAL DATA SHEET

# PAVING GRADE 160/220

**DESCRIPTION:**

Bitumen 160/220 is a Penetration Grade of Bitumen according to the standard: BS EN 12591: 2009 typically used as a Paving Grade Bitumen suitable for road construction and to produce asphalt pavements with superior properties particularly in road and airport constructions and other similar applications. This grade of Bitumen is mainly used in the manufacture of hot mix asphalt for bases and wearing courses. Penetration Grades of Bitumen is produced from Vacuum Residue, which is blown by hot in the Biturox Blowing Unit; The fully automated process runs continuously resulting in a constant and homogeneous finished product quality. Wataniya’s Penetration Grade Bitumen can be supplied in any grade and are designated by two numbers to indicate the mid-points of their penetration ranges. The penetration grade bitumen has a thermoplastic property which causes the material to soften at high temperatures and to harden at lower temperatures. This unique temperature/ viscosity relationship is important when determining the performance parameters such as the adhesion, rheology, durability, and application temperatures of bitumen.

**PACKAGING:**

Paving Bitumen is commonly packed in new steel drums, 150, 180 & 220 Kg barrels and Jumbo Bags or Flexi tank. Likewise, the rest of grades are ready to load Ex-work bulk Wataniya Bitumen by truck.

**CHARACTERISTICS AND SPECIFICATIONS:**

Wataniya Bitumen guarantees that the Bitumen Grade 160/220 is produced in compliance and conformity to European Standards such BS EN 12591:2009. Also, it meets the following specification requirements:

SPECIFICATIONS	UNIT	STANDARD	MIN	MAX
Penetration 25°C, 100g,5s	0.1 mm	EN 1426	160	220
Softening Point	°C	EN 1427	35	43
Flash Point	°C	EN ISO 2592	220	--
Solubility in Trichloroethylene	%	EN 12592	99	--
Penetration Index	--	ANNEX A <sup>b</sup>	-1.5	+0.7
Dynamic Viscosity	Pa.s	EN 12596	30	--
Fraass Breaking Point	°C	EN 12593	--	-15
Kinematic Viscosity @ 135 °C	mm <sup>2</sup> /s	EN 12595	135	--
<b>ROLLING THIN FILM OVEN TEST</b>				
<b>RESISTANCE TO HARDENING AT 163°C</b>				
Retained Penetration	%	EN 12607-1	37	--
Increase in Softening Point	°C		--	12
Change of Mass (Absolute Value)	%		--	1.0

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