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## **Penetration Grade Bitumen 80/100**

Penetration grade Bitumen 80/100 delivered by BUOYANCY® is produced in compliance to AASTHO M20-70 and ASTM D946/D946M Standards. Bitumen 80/100 is commonly used for the production of asphalt pavements with superior properties and for construction and maintenance of roads. It is also commonly used to manufacture asphalt mixes, bitumen emulsion, cut-back bitumen, and modified bitumen. Bitumen 80/100 has the highest boiling point, heaviest and most polar fraction from the vacuum distillation of crude oil and is composed of asphaltene and maltene.

All Penetration Grades Bitumen Exported by BUOYANCY® are of petroleum grade, produced from fractional distillation of crude oil and vacuum residue (short residue) feedstock. 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 rheology, adhesion, durability and application temperatures of bitumen.

Properties	Units	Results	Test Methods
Specific Gravity @25°C	-	1.01-1.05	ASTM D-70
Penetration @25°C, 100gm, 5sec	0.1MM	80-100	AASHTO T49
Softening Point, Ring & Ball	°C	45-52	ASTM D-36
Ductility of residue @25°C	CM	100	AASHTO T51
Loss on Heating, Max	%WT	0.10	AASHTO T179
Penetration of residue % of the original	%	77	AASHTO T49
Flash Point Equivalent to BS EN 12591 and BS EN 13924	°C	328	AASHTO T48
Solubility in Trichloroethylene	%WT	99.9	AASHTO T2044
Spot Test			
Standard Naptha Solvent	%	Negative	AASHTO T102
Naptha –Xylene Solvent	%	Negative	AASHTO T102
Heptane Xylene Solvent	%	Negative	AASHTO T102
Spot Test		Negative	AASHTO T102

**Packing available:** 150  $\pm$  3 Kg, 180 Kg  $\pm$  3Kg, 200 Kg  $\pm$ 3Kg Net weight Steel drums and/or 300 Kg, 1000 Kg Polybags / Jumbo bags

Storage and Handling Recommendations: Store in unopened containers. Storage temperature limits 1°C - 50°C. For normal operations, such as blending and transferring liquid bitumen, temperatures of 10°C - 40°C above the minimum pumping temperatures are recommended.

**Recommended Application Temperatures:** Asphalt mixing temperature: 150°C - 160°C.

Asphalt compaction temperature: 135°C - 145°C.

Accredited: ISO9001:2015 | ISO 14001:2015 | ISO45001:2018

