



## VISCOSITY GRADE BITUMEN

### AVAILABLE GRADES

- VG 10
- VG 30
- VG 40

## BENEFITS OF DRG BITUMEN VISCOSITY GRADE BITUMEN

01

### Thermoplastic Nature:

VG bitumen softens at high temperatures and hardens at lower temperatures, allowing it to adapt to varying climatic conditions.

03

### Penetration Value:

Indicates hardness; lower penetration means harder bitumen. For example, VG 30 has a penetration value of 50–70 (0.1 mm) at 25°C.

05

### Ductility:

·Measures the ability to stretch without breaking. VG 30, for instance, typically has ductility of 100 cm at 25°C, ensuring flexibility and resistance to cracking in pavements.

02

### Viscosity:

Defined as the resistance to flow, measured at 60°C and 135°C. Higher VG numbers indicate higher viscosity and greater hardness for better performance.

04

### Softening Point:

The temperature at which bitumen softens; higher VG grades have higher softening points, making them suitable for hot climates.

06

### Flash Point:

Indicates the temperature at which vapors ignite; VG bitumen generally has a flash point above 220°C, ensuring safety during handling.

## TECHNICAL SPECIFICATIONS OF DRG BITUMEN VISCOSITY GRADE BITUMEN

Sl.No.	Characteristics	DRG Bitumen VG 10	DRG Bitumen VG 30	DRG Bitumen VG 40	Method of Test
i)	Penetration at 25°C, 100 g, 5 s, 0.1 mm, Min	80	45	35	IS 1203
ii)	Absolute viscosity at 60°C, Poises	800-1200	1600-2400	3200-4800	IS 1206 (Part 2)
iii)	Kinematic viscosity at 135°C, cSt, Min	250	350	400	IS 1206 (Part 3)
iv)	Flash point (Cleveland open cup), °C, Min	220	220	220	IS 1448 [P : 69]
v)	Solubility in trichloroethylene, percent, Min	99.0	99.0	99.0	IS 1216
vi)	Softening point (R&B), °C, Min	40	47	50	IS 1205
vii)	Tests on residue from thin film over test / RTFOT:				
a)	Viscosity ratio at 60°C, max	4.0	4.0	4.0	IS 1206 (Part 2)
b)	Ductility at 25°C, cm, Min	75	40	25	IS 1208