

SPECIFICATION OF BITUMEN

BITUMEN GRADE 60/70

SPECIFICATION TEST METHOD
SPECIFIC GRAVITY @25/25 C 1.01-1.06 D-70
PENETRATION @25 C 60/70 D-5
SOFTENING POINT C 49/56 D-36
DUCTILITY @25 C 100 MIN D-113
LOSS ON HEATING (WT)% 0.2 MAX D-6
DROP IN PENETRATION AFTER HEATING % 20 MAX D-6 & D-5
FLASH POINT C 250MIN D-92
SOLUBILITY IN CS2 (WT)% 99.5 MIN D-4
SPOT TEST NEGATIVE *A.A.S.H.O.T.102

BITUMEN GRADE 85/100

SPECIFICATION TEST METHOD
SPECIFIC GRAVITY @25/25 C 1.01-1.05 D-70
PENETRATION @25 C 85/100 D-5
SOFTENING POINT C 45/52 D-36
DUCTILITY @25 C 100 MIN D-113
LOSS ON HEATING (WT)% 0.5 MAX D-6
DROP IN PENETRATION AFTER HEATING % 20 MAX D-6 & D-5
FLASH POINT C 225MIN D-92
SOLUBILITY IN CS2 (WT)% 99.5 MIN D-4
ORGANIC MATTER INSOLUBLE IN CS2
(WT)% 0.2 MAX D-4
SPOT TEST NEGATIVE *A.A.S.H.O.T.102

BITUMEN GRADE 40/50

SPECIFICATION TEST METHOD
SPECIFIC GRAVITY @25/25 C 1.01-1.06 D-70
PENETRATION @25 C 40/50 D-5
SOFTENING POINT C 52/60 D-36
DUCTILITY @25 C 100 min D-113
LOSS ON HEATING (wt)% 0.2 max D-6
DROP IN PENETRATION AFTER HEATING % 20 max D-6 & D-5
FLASH POINT C 250min D-92
SOLUBILITY IN CS2 (wt)% 99.5 min D-4
SPOT TEST NEGATIVE *A.A.S.H.O.T.102

SPECIFICATION OF BITUMEN

Requirements of Paving Bitumen VG 30 (50/70)

Sr Standard

No. Characteristics VG30 Paving Grade Results Methods of Test Ref. to IS ASTM

Equivalent

1 Absolute Viscosity at 60C, Poises,
min 2400 2840 IS 1206 (part2) D2171

2 Kinematic Viscosity at 135C, cst, min 350 353 IS 1206 (part3) D2170

3 Flash point, (Cleveland open cup), C,
min 220 322 IS 1209 D92

4 Solubility in trichloroethylene, %,
min 99.0 99/5 IS 1216 D2042

5 Penetration at 25C, 100g, 5 sec, 0.1
mm 50-70 50/2 IS 1203 D5

6 Softening Point, (R&B), C, min 47 53/7 IS 1205 D36

7 Test on residue from thin-film oven
tests / RTFOT D1754

1) Viscosity ratio at 60C, max 4.0 IS 1206 (part2) D2171

2) Ductility at 25C, cm, min, after
thin-film oven test 40 88 IS 1208 D113

BITUMEN DATA SHEET 150-200

TEST UNIT CONTENT STANDARD

Penetration dmm 168 ASTM D 5

Softening Point °C 41.3 ASTM D 36

Viscosity @ 135°C Pa.S 0.712 ASTM D 4402

Loss on heating after RTFOT % 0.82 ASTM D 2872

Penetration after RTFOT dmm 89 ASTM D 5

Ductility @ 15°C cm >130 ASTM D 113

Flash point °C >240 ASTM D 92

BITUMEN DATA SHEET VG-30

Test Unit Result Specification Method

Absolute Viscosity @ 60°C Poise 2669 > 2400 ASTM D 2171

Kinematic Viscosity @ 135°C cst 361 > 350 ASTM D 2170

Penetration @ 25°C 0.1mm 51 50 - 70 ASTM D 5

Softening Point °C 52.8 > 47 ASTM D 36

Solubility in Trichloroethylene % 99.8 > 99 ASTM D 2042

Ductility @ 25°C after RTFOT cm 88 > 40 ASTM D 113

Flash Point °C 330 > 220 ASTM D 92