

Bitumen

Catalog 2020



**RAYMOND
ENERGY**

International Trading and Finance

Penetration Grade Bitumen

Technical Data Sheet (Penetration Grade Bitumen 40/50)

SPECIFICATION	ACCEPTABLE RANGE	RESULT	TEST METHOD
Penetration @25 C°, mm/10	40-50	47	ASTM D5
Softening Point C°	45-60	53.6	ASTM D36
Specific Gravity @25 C°	1.01-1.06	1.028	ASTM D70
Ductility @25 C° cm	Min 100	> 100	ASTM D113
Flashpoint C°	Min 220	344	ASTM D92
Solubility in CCL4, %	Min 99	99.7	ASTM D2042
Spot Test in Naphtha	Negative	Negative	AASHO T 102
TESTS ON RESIDUE FROM THIN-FILM OVEN TEST (T.F.O.T)			
Drop in penetration %	Max 20	6.3	ASTM D5 & D6
Mass Loss Wt%	Max 0.2	0.07	ASTM D6

Technical Data Sheet (Penetration Grade Bitumen 60/70)

SPECIFICATION	ACCEPTABLE RANGE	RESULT	TEST METHOD
Penetration @25 C°	60-70	66	ASTM D5
Softening Point C°	46-56	49.5	ASTM D36
Specific Gravity @ 25 C°	1.01-1.06	1.018	ASTM D70
Ductility @ 25 C°, cm	Min 100	> 100	ASTM D113
Flashpoint C°	Min 220	315	ASTM D92
Solubility in CCL4 %	Min 99	99.8	ASTM D2042
Spot Test in Naphtha	Negative	Negative	AASHO T 102
TESTS ON RESIDUE FROM THIN-FILM OVEN TEST (T.F.O.T)			
Drop in penetration %	Max 20	8.9	ASTM D5 & D6
Mass Loss Wt%	Max 0.2	0.09	ASTM D6

Oil
Gas
Petrochemical
Automobile
Steel
Power Plant



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Penetration Grade Bitumen

Technical Data Sheet (Penetration Grade Bitumen 80/100)

SPECIFICATION	ACCEPTABLE RANGE	RESULT	TEST METHOD
Penetration @25 C°	85-100	91	ASTM D5
Softening Point C°	42-53	45.4	ASTM D36
Specific Gravity @25 C°	1.01-1.06	1.01	ASTM D70
Ductility @25 C°, Cm	Min 100	> 100	ASTM D113
Flashpoint C°	Min 220	344	ASTM D92
Solubility in CCL4 %	Min 99	99.8	ASTM D2042
Spot Test in Naphtha	Negative	Negative	AASHTO T 102
TESTS ON RESIDUE FROM THIN-FILM OVEN TEST (T.F.O.T)			
Drop in penetration %	Max 20	8.9	ASTM D5 & D6
Mass Loss Wt%	Max 0.2	0.11	ASTM D6

Oil

Gas

Petrochemical

Automobile

Steel

Power Plant



Technical Data Sheet (Viscosity Grade Bitumen VG10)

SPECIFICATION	ACCEPTABLE RANGE	RESULT	TEST METHOD
Absolute Viscosity @60 C°, Poises	Min 800	1164	ASTM D4402
Kinematic Viscosity @135 C°, C.St	Min 250	287	ASTM D4402
Ductility @25 C°. Cm	Min 110	> 100	ASTM D113
Solubility in CCL4 %	Min 99	99.8	ASTM D2042
Specific Gravity @25 C°	1.01-1.06	1.01	ASTM D70
Spot Test in Naphtha	Negative	Negative	AASHO T 102-42
Flashpoint C°	Min 220	344	ASTM D92
Penetration @25 C°	80-100	91	ASTM D5
Softening Point C°	Min 40	45.4	ASTM D36
TESTS ON RESIDUE FROM THIN-FILM OVEN TEST (T.F.O.T)			
Ratio Viscosity @60 C°, %	Max 4	2.1	ASTM D4402
Ductility @25 C°, cm	Max 75	89	ASTM D113

Technical Data Sheet (Viscosity Grade Bitumen VG20)

SPECIFICATION	ACCEPTABLE RANGE	RESULT	TEST METHOD
Absolute Viscosity @60 C°, Poises	Min 1600	1922	ASTM D4402
Kinematic Viscosity @135 C°, C.St	Min 300	317	ASTM D4402
Ductility @25 C°. Cm	Min 100	> 100	ASTM D113
Solubility in CCL4 %	Min 99	99.8	ASTM D2042
Specific Gravity @25 C°	1.01-1.06	1.022	ASTM D70
Spot Test in Naphtha	Negative	Negative	AASHO T 102-42
Flashpoint C°	Min 220	334	ASTM D92
Penetration @25 C°	60-80	70	ASTM D5
Softening Point C°	Min 45	47.8	ASTM D36
TESTS ON RESIDUE FROM THIN-FILM OVEN TEST (T.F.O.T)			
Ratio Viscosity @60 C°, %	Max 4	1.9	ASTM D4402
Ductility @25 C°, cm	Max 50	76	ASTM D113



Technical Data Sheet (Viscosity Grade Bitumen **VG30**)

SPECIFICATION	ACCEPTABLE RANGE	RESULT	TEST METHOD
Absolute Viscosity @60 C°, Poises	Min 2400	2486	ASTM D4402
Kinematic Viscosity @135 C°, C.St	Min 350	378	ASTM D4402
Ductility @25 C°. Cm	Min 110	> 100	ASTM D113
Solubility in CCL4 %	Min 99	99.8	ASTM D2042
Specific Gravity @25 C°	1.01-1.06	1.014	ASTM D70
Spot Test in Naphtha	Negative	Negative	AASHTO T 102-42
Flashpoint C°	Min 220	342	ASTM D92
Penetration @25 C°	50-70	66	ASTM D5
Softening Point C°	Min 47	49.5	ASTM D36
TESTS ON RESIDUE FROM THIN-FILM OVEN TEST (T.F.O.T)			
Ratio Viscosity @60 C°, %	Max 4	2.1	ASTM D4402
Ductility @25 C°, cm	Max 40	63	ASTM D113

Technical Data Sheet (Viscosity Grade Bitumen **VG40**)

SPECIFICATION	ACCEPTABLE RANGE	RESULT	TEST METHOD
Absolute Viscosity @60 C°, Poises	Min 3200	3912	ASTM D4402
Kinematic Viscosity @135 C°, C.St	Min 400	426	ASTM D4402
Ductility @25 C°. Cm	Min 100	> 100	ASTM D113
Solubility in CCL4 %	Min 99	99.87	ASTM D2042
Specific Gravity @25 C°	1.01-1.06	1.028	ASTM D70
Spot Test in Naphtha	Negative	Negative	AASHTO T 102-42
Flashpoint C°	Min 220	334	ASTM D92
Penetration @25 C°	40-60	47	ASTM D5
Softening Point C°	Min 50	53.6	ASTM D36
TESTS ON RESIDUE FROM THIN-FILM OVEN TEST (T.F.O.T)			
Ratio Viscosity @60 C°, %	Max 4	1.5	ASTM D4402
Ductility @25 C°, cm	Max 25	38	ASTM D113



Packaging

Packed in New Steel Drums



DRUM SPECIFICATION	180 KG DRUMS	155 KG DRUM
Thickness	0.6 ± 0.02 mm	0.6 ± 0.02 mm
Height	98 ± 2 cm	85 ± 1 cm
Diameter	50 ± 2 cm	50 ± 2 cm
Net Weight	182 ± 3 Kgs	152 ± 3 Kgs
Gross Weight	192 ± 3 Kgs	162 ± 3 Kgs

PACKAGING	1×20' FCL UNPALLETIZED	1×20' FCL PALLETIZED	1×40' FCL UNPALLETIZED	1×40' FCL PALLETIZED
Steel Drum 185 Kgs	110 Drums	80 Drums	137 Drums	105 Drums
Steel Drum 155 Kgs	110 Drums	80 Drums	137 Drums	105 Drums



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Packaging

Packed in Poly-cube



Quantities	
Number of POLYCUBE filled in a standard 20ft container	80 Pcs
Bitumen in a 20ft container	24 MT

Oil

Gas

Petrochemical

Automobile

Steel

Power Plant



Packed in Polyethylene Jumbo Bags



The Bitumen Bag can carry over 1,000 kg of bitumen. Its shape and volume are optimized for maximum loading. The bag can be transported by any common transport system (truck, standard container, rail, ship).

Quantities	
Number of Jumbo Bags filled in a standard 20ft container	18 to 20 Pcs
Bitumen in a 20ft container	18 to 20 MT



**RAYMOND
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Packaging

In Bulk Carrier Ocean Vessels



Oil

Gas

Petrochemical

Automobile

Steel

Power Plant

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