

KGT 841 - Viscosity

Technical specifications of pure bitumen in terms of viscosity at 60 ° C according to AASHTO-M226

The experiment	Degree of viscosity					
	-5/2AC	-5AC	-10AC	-20AC	-30AC	-40AC
Viscosity at 60 ° C, in Pooz	50 ± 250	100 ± 500	200 ± 1000	400 ± 2000	600 ± 3000	800 ± 4000
Viscosity at 135 oC, cSt, minimum	125	175	250	300	350	400
Degree of penetration at 25 oC, 100 g, 5 seconds, minimum	220	140	80	60	50	40
Flash point, Cleveland open container, ° C, minimum	163	177	219	232	232	23
Solubility in trichloroethylene,%	0/99	0/99	0/99	0/99	0/99	0/99
Test on the remaining bituminous thin layer in the test:						
Thermal drop,%, max	-	0/1	5/0	5/0	5/0	5/0
Viscosity at 60 ° C, Poiss	1000	2000	4000	8000	12000	16000
Bitumen tension, cm, at 25 ° C at a rate of 5 cm / min, minimum	(1) 100	100	75	50	40	25
Stain test (depending on the case or according to the specifications) with:						
Halal Naphtha	Negative result for all the above bitumen					
Naphtha solvent - xylene, percentage of xylene	Negative result for all the above bitumen					
Solvent naphtha xylene, percentage of xylene	Negative result for all the above bitumen					

- If the tension at 25 ° C is less than 100 cm, it is acceptable provided that the tension at 15.6 ° C with a tension speed of 5 cm / min is at least 100 cm

Technical specifications of pure bitumen in terms of viscosity at 60 ° C according to AASHTO-M226

Residual results of ASHTO 240 T test method (1)	Degree of viscosity				
	-10AR	-20AR	-40AR	-80AR	-160AR
Viscosity at 60 ° C, Poiss	250 ± 1000	500 ± 2000	1000 ± 4000	2000 ± 8000	4000 ± 16000
Viscosity at 135 oC, cSt, minimum	140	200	275	400	550
Degree of penetration at 25 oC, 100 g, duration 5 seconds - minimum	65	40	25	20	20
Percentage of bitumen penetration in 25 - minimum	-	40	45	50	52
Bitumen tension at 25 ° C at a rate of cm / min5, cm, minimum	(2) 100	(2) 100	75	75	75
Test on primary bitumen					
Cleveland open container flash point, oC, minimum	205	219	227	232	238
Solubility in trichlorethylene,%	0/99	0/99	0/99	0/99	0/99

1. ASHTO 240 T (bitumen thin layer test) may be used, but ASHTO 240 T should be used as a comparative method.
2. Bitumen tensile less than 100, the material will remain. If the tensile strength of 15.6 o C bitumen is at least 100.

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Technical specifications of pure bitumen in terms of viscosity at 60 ° C according to ASTM-D3381

The experiment	Degree of viscosity				
	-5/2 AC	-5AC	-10AC	-20AC	-40AC
Viscosity at 60 ° C, Poiss	250 ± 50	500 ± 100	1000 ± 200	2000 ± 800	
Viscosity at 135 oC, cSt, minimum	80	110	150	210	300
Degree of penetration at 25 oC, 100 g, 5 seconds, minimum	200	120	70	40	20
Cleveland open container flash point, oC, minimum	163	177	219	232	232
Solubility in trichlorethylene,%	0/99	0/99	0/99	0/99	0/99
Test on residual bitumen:					
Viscosity at 60 ° C, Poiss, max	1250	2500	5000	10000	20000
Bitumen traction at 25 oC at a speed of 5 cm / min,%, minimum	(1) 100	100	50	20	10

- If the tension at 25 ° C is less than 100 cm, it is acceptable provided that the tension at 15.6 ° C with a tension speed of 5 cm / min is at least 100 cm

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Technical specifications of pure bitumen in terms of viscosity at 60 ° C according to ASTM-D3381

The experiment	Degree of viscosity					
	-5/2 AC	-5 AC	-10 AC	-20AC	-30AC	-40AC
Viscosity at 60 ° C, Poiss	250 ± 50	500 ± 100	1000 ± 200	2000 ± 400	3000 ± 600	4000 ± 800
Viscosity at 135 ° C, minimum	125	175	250	300	350	400
Infiltration at 25 oC, 100 g, for 5 seconds - minimum	220	140	80	60	50	40
The flash point of Cleveland open containers is oC-minimum	163	177	219	232	232	232
Solubility in trichlorethylene - minimum - percentage	0/99	0/99	0/99	0/99	0/99	0/99
Experiment on the remaining bitumen from the thin layer of bitumen:						
Viscosity at 60 ° C, maximum Poiss	1250	2500	5000	10000	15000	20000
Tensile strength at 25 oC at a speed of Cm / min5, cm, minimum	(1) 100	100	75	50	20	10

- If the tension at 25 ° C is less than 100 cm, it is acceptable provided that the tension at 15.6 ° C with a tension speed of 5 cm / min is at least 100 cm

Technical specifications of pure bitumen in terms of viscosity at 60 ° C according to ASTM-D3381

Experiments on the residue of a thin layer of bitumen (1)	Degree of viscosity				
	-1000AR	-2000AR	-4000AR	-8000AR	-16000AR
Viscosity at 60 ° C, in Pooz	1000 ± 250	2000 ± 500	4000 ± 1000	8000 ± 2000	16000 ± 4000
Viscosity at 135 oC, cSt, minimum	140	200	275	400	550
Degree of penetration at 25 oC, 100 g, duration 5 seconds, minimum	65	40	25	20	20
Percentage of degree of penetration of primary bitumen at 25 oC, minimum	-	40	45	50	52
Bitumen tensile at 25 oC at a rate of 5 cm / min, cm, minimum	(1) 100	(2) 100	75	75	75
Experiment on the remaining bitumen from the thin layer of bitumen:					
Cleveland open container flash point, oC, minimum	205	219	227	232	238
Solubility in trichlorethylene, minimum,%	0/99	0/99	0/99	0/99	0/99

1. A thin layer of bitumen may be used in the test. But bitumen thin layer testing should be used as a comparative method.
2. It is acceptable if the tension at 25 ° C is less than 100 cm. Provided that the tension at 15.6 ° C with a tension speed of 5 cm / min is at least 100 cm.