

TECHNICAL DATA SHEET

AC GRADE BITUMEN

Note: Viscosity is measured in poise (cm-g-s = dyne-second/cm², named after Jean Louis Marie Poiseuille). The lower the number of poises, the lower the viscosity and thus the more easily a substance flows. Thus, AC-5 (viscosity is 500 ± 100 poise at 60° C (140° F)) is less viscous than AC-40 (viscosity is 4000 ± 800 poise at 60° C (140° F)). Table 2 shows standard viscosity grades for the AC and AR grading systems from AASHTO M 226 and ASTM D 3381. Typical grades used for HMA paving in the U.S. are AC-10, AC-20, AC-30, AR-4000 and AR 8000.

Specification	Exact Grade				Test Method
	AC-2.5	AC-5	AC-10	AC-20	
Penetration@25C	250 ±50	500 ±100	1000±200	2000 ±400	4000 ±800
Absolute Viscosity@60C,Poises	80	110	150	210	300
Kinematic Viscosity@135C	200	120	70	40	20
Flash point, Cleveland open cup, min,° F (°C)	325 (163)	350 (177)	425 (219)	450 (232)	450 (232)
Solubility in trichloroethylene, min, %	99.0	99.0	99.0	99.0	99.0
Viscosity, 140°F (60°C), max, P	1250	2500	5000	10000	20000
Ductility, 77°F (25°C), 5 cm/min, min, cm	100A	100	50	20	10