

NCDOT SPECIFICATIONS FOR ASPHALT EMULSIONS

Version: Rev 24, 20220224

Type	Grade	SAYBOLT VISC (SV) [a]			RPV @ 122 °F		Min Residue (%)	Max Sieve (%) [a]	Max Demulsibility	TESTS ON RESIDUE						Charge	Use Code	Notes
		°F	SV Min	SV Max	RPV Min	RPV Max				Pen Min	Pen Max	Min Ductil	Min ER	Min RB-SP (°F)	Min Solub			
Anionic	RS-1	77	20	100	--	--	55	0.10	60	90	150	40	--	--	--	Anionic	5	
	RS-1H	77	20	100	--	--	55	0.10	60	40	90	40	--	--	--	Anionic	2,5	
	RS-2	122	75	400	150	800	65	0.10	60	90	150	40	--	--	--	Anionic		
	SS-1	77	20	100	--	--	57	0.10	--	90	250	40	--	--	--	Anionic		
	SS-1H	77	20	100	--	--	57	0.10	--	40	90	40	--	--	--	Anionic		
	HFMS-1	77	20	100	--	--	55	0.10	--	90	250	40	--	--	--	Anionic	2	
	HFMS-2	122	100	--	200	--	65	0.10	--	90	250	40	--	--	--	Anionic		
Cationic	CRS-1	122	20	100	40	200	60	0.10	40	90	150	40	--	--	--	Cationic	2,5	
	CRS-1H	122	20	100	40	200	60	0.10	40	40	90	40	--	--	--	Cationic	2,5	
	PMEM / Alphabond	77	20	100	--	--	63	0.10	60	60	150	--	60 [d]	--	97.5	Cationic		[d], [e], [f]
	CRS-2	122	100	400	200	800	65	0.10	40	90	150	40	--	--	--	Cationic	2,5	
	CRS-2L	122	100	400	200	800	65	0.15	40	--	--	--	60	110	--	Cationic	4	
	CRS-2P	122	100	400	200	800	65	0.10	40	--	--	--	60	110	--	Cationic	4	
	CMS-2	122	50	450	100	900	65	0.10	--	90	250	40	--	--	--	Cationic		
	CMS-2h	122	50	450	100	900	65	0.10	--	40	90	40	--	--	--	Cationic		
	CSS-1	77	20	100	--	--	57	0.10	--	90	250	40	--	--	--	Cationic		
	CSS-1h	77	20	100	--	--	57	0.10	--	40	90	40	--	--	--	Cationic		
	CQS-1h	77	20	100	--	--	62	0.10	--	40	90	--	--	--	--	Cationic	7	
	CQS-1hLM(PM)	77	20	100	--	--	62	0.10	--	--	--	--	50	135	--	Cationic	7	
	EA-P	77	10	50	--	--	15	0.10	--	--	--	--	--	--	--	Cationic	1	
CMS-PX	77	6	30	--	--	25	0.10	--	100	200					Cationic	1	[c]	
CSS-1RP	77	20	100	--	--	15	0.10	--	250	--	--	--	--	--	Cationic	1, 6	[b]	
Non-Tracking	CNTTC	77	10	50			50	0.1		40	60			104-140		Cationic	2	
	EM-50-TT	77	0	100			50	0.1		0	20			149		Anionic	2	
	NTCRS-1HM	77	20	100			55	0.15		0	70					Cationic	2	
	CNTSS-1HM	77	20	100			50	0.15		0	20			149	97.5	Cationic	2	[g]
	NTSS-1HM	77	20	100			50	0.15		0	20			149	97.5	Anionic	2	
	NTCRS-1HSP	77	20	100			55	0.1								Cationic	2	
	NTCQS-1hM						50	0.1		0	60			55-131		Cationic	2	
Specialty Products	EPR-1	77	20	100			50	0.3		0	20							
	FasBlack-M	77	20	100			57	0.15		40	90			135			8	
	GSB-88 (info only)																	
	Viaflex (info only)																	

**Notes:** [a] - This test requirement on representative samples may be waived if successful applications of the material has been achieved in the field  
 [b] - (SV 20-125)-Special Provision--(Residue 60%+)-- (Pen. 300 Min. ) -- Hot in Place (HIP) Only / rejuvenating agent  
 [c] - Pen is 100-200 with 100 grams for 5sec  
 [d] - Elastic Recovery is 20 cm elongation and 50°F  
 [e] - Oil Distillate, % by volume for product is 2% maximum. Report status in HC test comments.  
 [f] - Residue from distillation at 400°F  
 [g] - Test charge using T59 Section 28

- Use codes:**
1. Prime
  2. Tack
  3. Plant Mix
  4. AST
  5. Curing Seal
  6. Hot In Place Recycled Mix
  7. Slurry Seal
  8. Fog Seal