

State: Connecticut	Specification: Re: Section M.04.04, Bituminous Concrete Materials
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Connecticut		Table 1: Requirements for Anionic Emulsified Asphalts (1)				
Property		Test Method AASHTO (T), ASTM (D), or Other	Rapid-Setting		Slow-Setting	
			RS-1 (2)	RS-1h	SS-1 (3)	SS-1h (3)
Viscosity, Saybolt Furol seconds	25 °C (77 °F)	T59	20-100			
	50 °C (122 °F)		-	-	-	-
Settlement, 5 days, %			-	-	-	-
Storage Stability Test, 24 hours, % (4)			1 max.			
Sieve Test, % (4,5)			0.10 max.			
Demulsibility, % (6)			60 min.	60 min.	-	-
Cement Mixing Test, %			-	-	2.0 max.	2.0 max.
Coating Ability and Water Resistance	Dry Aggregate		-			
	After Spraying					
	Wet Aggregate					
	After Spraying					
Residue, %		55 min.	55 min.	57 min.	57 min.	
Penetration, 25 °C (77 °F), tenths of mm		T49	100-200	40-90	100-200	40-90
Ductility, 25 °C (77 °F), cm		T51	40 min.			
Ash content, %		T111	1.0 max.			
NOTES:		1. Refer to R5 for typical applications. 2. Materials used for tack coat shall be grade RS-1 or RS-1h. 3. When ambient temperatures are 80 °F (27 °C) and rising, grade SS-1 or SS-1h may be substituted if approved by the Engineer. 4. This test requirement on representative samples is waived if successful application of the material has been achieved in the field. 5. A maximum percentage of 0.30 is acceptable for samples taken at the point of use. 6. The demulsibility test shall be performed within 30 days from the date of shipment. Use 35 ml, 0.02 N CaCl ₂ solution.				

Connecticut		Table 2: Requirements for Cationic Emulsified Asphalts (1)				
Property		Test Method AASHTO (T), ASTM (D), or Other	Rapid-Setting		Slow-Setting	
			CRS-1 (2)	CRS-2P	CSS-1	SS-1h
EMULSIONS:						
Viscosity, Saybolt Furol seconds	25 °C (77 °F)	T59	-	-	20-100	20-100
	50 °C (122 °F)		20-100	100-400	-	-
Settlement, 5 days, % (4)	-					
Storage Stability Test, 24 hours, % (5)	1 max.					
Sieve Test, % (5)	0.10 max.					
Particle Charge	Positive					
Demulsibility , % (4,6)	40 min.		40 min.	-	-	
Cement Mixing Test, %	-		-	-	2.0 max.	
Coating Ability and Water Resistance	Dry Aggregate		-			
	After Spraying					
	Wet Aggregate					
	After Spraying					
Residue, %	60 min.		65 min.	65 min.	57 min.	
Oil Distillate, volume of emulsion, %	3 max.		3 max.	12 max.	-	
pH	T200	-				
DISTILLATION RESIDUE:						
Penetration, 25 °C (77 °F), tenths of mm	T49	100-250	90-150	100-250	100-250	
Ductility, 25 °C (77 °F), cm	T51	40 min.				
Elastic Recovery, 25° C(77 °F), % recovery (7)	T 301	-	60 min.	-	-	
Ash content, %	T111	1.0 max.				
NOTES:	1. Refer to R5 for typical applications. 2. Materials used for tack coat shall be grade CRS-1. 3. When ambient temperatures are 80 °F (27 °C) and rising, grade CSS-1 or CSS-1h may be substituted if approved by the Engineer. 4. The settlement and demulsibility test will not be performed unless deemed necessary by the DRM. 5. This test requirement on representative samples is waived if successful application of the material has been achieved in the field. 6. Use 35 ml of 0.8% sodium dioctyl sulfosuccinate solution. 7. Strait-sided, 5cm/min., 20 cm elongation, 5 minute hold.					

Connecticut		Table 3: Requirements for High Float Emulsified Asphalt (1)					
Property		Test Method AASHTO (T), ASTM (D), or Other	Rapid-Setting	Medium-Setting			
			HFRS-2	HFMS-1	HFMS-2	HFMS-2h	HFMS-2s
EMULSIONS:							
Viscosity, Saybolt Furol seconds	25 °C (77 °F)	T59	-	20-100	100 min.	100 min.	50 min.
	50 °C (122 °F)		75-400	-	-	-	-
Storage Stability Test, 24 hours, % (2)			1 max.	1 max.	1 max.	1 max.	1 max.
Sieve Test, % (2,3)			0.10 max.	0.10 max.	0.10 max.	0.10 max.	0.10 max.
Demulsibility , % (4)			60 min.	-	-	-	-
Coating Ability and Water Resistance	Dry Aggregate		-	Good	Good	Good	Good
	After Spraying		-	Fair	Fair	Fair	Fair
	Wet Aggregate		-	Fair	Fair	Fair	Fair
	After Spraying		-	Fair	Fair	Fair	Fair
Residue, %			63 min.	55 min.	65 min.	65 min.	65 min.
Oil Distillate, volume of emulsion, %			-	-	-	-	1-7
DISTILLATION RESIDUE:							
Penetration, 25 °C (77 °F), tenths of mm		T49	100-200	100-200	100-200	40-90	200 min.
Ductility, 25 °C (77 °F), cm		T51	40 min.	40 min.	40 min.	40 min.	40 min.
Solubility in trichloroethylene, % (5)		T44	97.5 min.	97.5 min.	97.5 min.	97.5 min.	97.5 min.
Float Test at 60 °C (140 °F), seconds		T50	1200 min.	1200 min.	1200 min.	1200 min.	1200 min.
NOTES:		1. Refer to R5 for typical applications. 2. This test requirement on representative samples is waived if successful application of the material has been achieved in the field. 3. A maximum percentage of 0.30 is acceptable for samples taken at the point of use. 4. The demulsibility test shall be performed within 30 days from the date of shipment. Use 35 ml, 0.02 N CaCl ₂ solution. 5. N-propyl bromide may also be used for HFRS-2.					