

State: Ohio	Materials: Section 702-Asphalt Material,
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Ohio		Table 1: Requirements for Anionic Emulsified Asphalts (a)					
Property		Test Method AASHTO (T), ASTM (D), or Other	Rapid-Setting		Medium-Setting	Slow-Setting	
			RS-1	RS-2	MS-2	SS-1	SS-1h
EMULSIONS:							
Viscosity, Saybolt Furol seconds (b.)	25 °C (77 °F)	T59	20-100	-	100 min.	20-100	20-100
	50 °C (122 °F)		-	75-400	-	-	-
Viscosity, Rotational Paddle, (mPa*s)	25 °C (77 °F)		40 – 200			40 – 200	40 - 200
	50 °C (122 °F)			75 - 400			
Storage Stability Test, 24 hours, %, max			1	1	1	1	1
Sieve Test, %, max			0.10	0.10	0.10	0.10	0.10
Demulsibility, 35 mL, 0.02 N CaCl ₂ , %, min			60	60	-	-	-
Cement Mixing Test, %, max.			-	-	-	2.0	2.0
Residue, %, min			55	65	65	57	57
DISTILLATION RESIDUE:							
Penetration, 25 °C (77 °F), tenths of mm		T49	90-150	90-150	90-250	90-250	40-90
Ductility, 25 °C (77 °F), cm, min		T51	40	40	40	40	40
Ash content, %, max		T111	1.0	1.0	1.0	1.0	1.0
NOTES:		a) Provide emulsified asphalts according to AASHTO M 140 except specification limits will be producible for at least 30 days from sample date. b) Use either Saybolt Furol or the Rotational Paddle Viscometer for viscosity. Effective January 1, 2027, use only the Rotational Paddle Viscometer					

Ohio		Table 2: Requirements for Cationic Emulsified Asphalts (a)			
Property		Test Method AASHTO (T), ASTM (D), or Other	Rapid-Setting	Slow-Setting	
			CRS-2	CSS-1	CSS-1h
EMULSIONS:					
Viscosity, Saybolt Furol seconds	25 °C (77 °F)	T59	-	20-100	20-100
	50 °C (122 °F)		100-400	-	-
Viscosity, Rotational Paddle, (mPa*s) (2.)	25 °C (77 °F)			40 - 200	40 - 200
	50 °C (122 °F)		200 - 800	-	-
Storage Stability Test, 24 hours, %, max			1.0	1.0	1.0
Sieve Test, %, max			0.10	0.10	0.10
Particle Charge			Positive	Positive	Positive
Demulsibility 35 mL, 0.08 mL Sodium Diocetyl Sulf., %, min			40	-	-
Cement Mixing Test, %, max.			-	2.0	2.0
Residue, %, min.			65	57	57
Oil Distillate, volume of emulsion, %, max.		3	-	-	
DISTILLATION RESIDUE:					
Penetration, 25 °C (77 °F), tenths of mm		T49	90-150	90-250	40-90
Ductility, 25 °C (77 °F), cm, min		T51	40	40	40
Ash content, %, max		T111	1	1	1
NOTES:		a) Provide emulsified asphalts according to AASHTO M 208 except specification limits will be producible for at least 30 days from sample date. b) Use either Saybolt Furol or the Rotational Paddle Viscometer for viscosity. Effective January 1, 2027, use only the Rotational Paddle Viscometer			

Ohio		Table 3: Requirements for Polymer Modified Asphalt Emulsions (702.16)				
Property	Test Method AASHTO (T), ASTM (D), or Other	Polymer Emulsified Binder				
		Type A	Type B		Type C	
		CRS-2P (b)	CRS-1P (c,g)	HFRS-1P (c,g)	CSS-1hM (h)	
EMULSIONS:						
Viscosity, Saybolt Furol seconds (g)	25 °C (77 °F)	T59	-	20-100	20-100	20-100
	50 °C (122 °F)		120-550	-	-	
Viscosity, Rotational Paddle, (mPa*s) (j)	25 °C (77 °F)		-	40 – 200	40 – 200	40 - 200
	50 °C (122 °F)		240 - 1100	-	-	-
Storage Stability Test, 24 hours, % difference, max. (a.)			1	1	1	1
Demulsibility, 35 mL of 0.8% Dioctyl Sodium Sulf. %, min			50	60	60	
Demulsibility, 35 mL of 0.02N, CaCL2, %, min				60	60	
Particle Charge Test			Positive			Positive
Sieve Test, (distilled water), %, max			0.1	0.05	0.05	0.10
Distillation to 177°C, residue % solids (d)			66	63	63	62
Oil Distillate, %, max		2	2	2		
DISTILLATION RESIDUE:						
Penetration, 25 °C (77 °F), tenths of mm	T 49	70-125	90-150	90-150	40-90	
Softening Point, °C, min	T 53	57	-	-	60	
Solubility, %, min (i)	T 44 or D7553	97.5	97.5	97.5	97.5	
Ash Content, %, max.	T 111	3.0	3.0	3.0	3.0	
Elastic Recovery, 50 °F (10 °C), %, min (e,f)	T 301	60	58	58	50	
Ductility, 25° C (77 °F), 5 cm/minute, (cm), min	T 51	-	-	-	40	
NOTES:	<p>a) After standing undisturbed for 24 hours, the surface will show no white, milky colored substance, but will be a smooth, homogeneous color throughout.</p> <p>b) CRS-2P, test within 20 days of project sampling. Limits for both certified source and project samples</p> <p>c) CRS-1P and HFRS-1P, Test within 20 days of project sampling. Limits for both certified source and project samples.</p> <p>d) See Supplement 1013. For Type C if natural Latex, use the oven evaporation method in AASHTO T59 in place of distillation and use this residue for further testing.</p> <p>e) Straight molds. Hold test temperature for 5 minutes and cut. Place in ductilometer and elongate 20 cm at 5 cm/min. Hold for 5 minutes and cut. After 1 hour retract the broken ends to touch and note elongation in cm (X) to the nearest (0.01 cm). Percent recovery = $((20 - X)/20) \times 100$. Report elastic recovery to nearest 0.1%</p> <p>f) SBR, SBS, and SB</p> <p>g) Minimum of 70 SFS for project acceptance.</p> <p>h) CSS-1hM Test within 30 days of sampling. Limits for both certified source and project samples. Do not use port addition of the polymer to the emulsified asphalt. Include the percent residue on the Bill of Lading</p> <p>i) On base asphalt only</p> <p>j) Effective January 1, 2027, the Rotational Paddle Viscometer (DPV) will be required for viscosity testing. Suppliers may use either Saybolt Furol or DPV prior, however, the Saybolt Furol will be used for referee testing until January 1, 2027.</p>					

Ohio		Table 4: Requirements for Non-Tracking Asphalt Emulsion (702.12)	
Property		Test Method, AASHTO (T), ASTM (D), or Other	Non-tracking Asphalt Emulsion
Tests on Emulsions:			
Viscosity, Saybolt Furol	77°F (25 °C), SFS	T 59	20 to 100
Viscosity, Rotational Paddle	77°F (25 °C), (mPa*s) ^(a)	T 59	40 to 200
Storage Stability Test, 24 hour, % Difference max.		T59	1.0
Settlement Tests, 5-day (% difference), max		T 59	5.0
Sieve Test, %, max (distilled water)		T 59	0.30
Distillation to 260°C, % solids, min ^(b)		T 59	50
Oil Distillate, %,max			3
Tests on Distillation Residue			
Penetration, 25 °C, 100 g, 5 sec, dmm,		T 59	0 - 35
Softening Point, °C, min		T 53	60
Ash Content, % max		T 111	3.0
Notes		<p>a. Effective January 1, 2027, the Rotational Paddle Viscometer (DPV) will be required for viscosity testing. Suppliers may use either the Saybolt Furol or DPV prior, however, the Saybolt Furol will be used for referee testing until January 1, 2027.</p> <p>b. Products may be residual by evaporation to perform residual and may use the material to perform residua tests but must be submitted during approval process in Supplement 1128. Will be required to perform residual by distillation to obtain oil distillate, %.</p>	