

State: Ohio	Materials: Section 702-Asphalt Material, Section 421-Microsurfacing
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Ohio		Table 1: Requirements for Anionic Emulsified Asphalts (1)					
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	25 °C (77 °F)	T59	20-100	-	100 min.	20-100	20-100
	50 °C (122 °F)		-	75-400	-	-	-
Settlement, 5 days, %			-	-	-	-	-
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.	60 min.	-	-	-
Cement Mixing Test, %			-	-	-	2.0 max.	2.0 max.
Coating Ability and Water Resistance	Dry Aggregate		-	-	Good	-	-
	After Spraying		-	-	Fair	-	-
	Wet Aggregate		-	-	Fair	-	-
	After Spraying	-	-	Fair	-	-	
Residue, %		55 min.	65 min.	65 min.	57 min.	57 min.	
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		T51	40 min.	40 min.	40 min.	40 min.	40 min.
Solubility in trichloroethylene or n-propyl bromide, %		T44	-	-	-	-	-
Ash content, %		T111	1.0 max.	1.0 max.	1.0 max.	1.0 max.	1.0 max.
NOTES:		<ol style="list-style-type: none"> 1. Refer to 407.06 for typical application rates for tack coat. 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 CaCl₂ solution. 					

To ensure the most accurate and current information, the specific agency should be contacted.
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Ohio		Table 2: Requirements for Cationic Emulsified Asphalts (1)			
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	-	-
Settlement, 5 days, %			-	-	-
Storage Stability Test, 24 hours, % (2)			1 max.	1 max.	1 max.
Sieve Test, % (2)			0.10 max.	0.10 max.	0.10 max.
Particle Charge			Positive	Positive	Positive
Demulsibility, % (3)			40 min.	-	-
Cement Mixing Test, %			-	2.0 max.	2.0 max.
Residue, %			65 min.	57 min.	57 min.
Oil Distillate, volume of emulsion, %			3 max.	-	-
DISTILLATION RESIDUE:					
Penetration, 25 °C (77 °F), tenths of mm		T49	90-150	90-250	40-90
Ductility, 25 °C (77 °F), cm		T51	40 min.	40 min.	40 min.
Solubility in trichloroethylene, %		T44	-	-	-
Ash content, %		T111	1 max.	1 max.	1 max.
Elastic Recovery, %		T301	-	-	-
Softening Point, Ring and Ball (°C)		T53	-	-	-
NOTES:		<ol style="list-style-type: none"> 1. Refer to 407.06 for tack coat application rates. 2. This test requirement on representative samples is waived if successful application of the material has been achieved in the field. 3. Use 35 ml of 0.8% sodium dioctyl sulfosuccinate solution. 			

Ohio		Table 3: Requirements for Polymer Modified Asphalt Emulsions				
Property		Test Method AASHTO (T), ASTM (D), or Other	Rapid-Setting			
			Type A	Type B		Type C
			CRS-2P (2)	CRS-1P (3,7)	HFRS-1P (3,7)	CSS-1hM (8)
EMULSIONS:						
Viscosity, Saybolt Furol seconds (7)	25 °C (77 °F)	T59	-	20-100	20-100	20-100
	50 °C (122 °F)		120-550	-	-	
Storage Stability Test, 24 hours, % (1)			1 max.	1 max.	1 max.	1 max.
Sieve Test, %			0.1 max.	0.05 max.	0.05 max.	0.10 max.
Particle Charge Test			Positive	Positive	Negative	Positive
Demulsibility, 35 mL of 0.02N, CaCL ₂ , %				60 min. (5)	60 min. (5)	
Distillation to 177°C, residue % solids (4)			66 min.	63 min.	63 min.	62 min.
Oil Distillate, volume of emulsion, %			2 max.	2 max.	2 max.	
DISTILLATION RESIDUE:						
Penetration, 25 °C (77 °F), tenths of mm		T49	70-125	90-150	90-150	40-90
Ductility, 25° C (77 °F), 5 cm/minute, cm		T51	-	-	-	40 min.
Elastic Recovery, 10 °C (50 °F), % (5,6)		T301	60 min.	58 min.	58 min.	50 min.
Softening Point, °C		T53	57 min.	-	-	60 min.
Solubility in trichloroethylene, % (9)		D2042 or D5546	97.5 min.	97.5 min.	97.5 min.	97.5 min.
NOTES:		<ol style="list-style-type: none"> After standing undisturbed for 24 hours, the surface will show no white, milky colored substance, but will be a smooth, homogeneous color throughout. CRS-2P, test within 20 days of project sampling. Limits for both certified source and project samples CRS-1P and HFRS-1P, Test within 20 days of project sampling. Limits for both certified source and project samples. 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. 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% SBR, SBS, and SB Minimum of 70 SFS for project acceptance. CSS-1hM Test within 30 days of sampling. Limit= (r 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 On base asphalt only 				

Ohio		Table 4: Requirements for Non-Tracking Asphalt Emulsion (1)	
Property		Test Method AASHTO (T), ASTM (D), or Other	Non-tracking asphalt emulsion
EMULSIONS:			
Viscosity, Saybolt Furol seconds	25 °C (77 °F)	T59	20-100
	50 °C (122 °F)		-
Settlement, 5 days, %			5.0 max.
Storage Stability Test, 24 hours, %			1.0 max.
Sieve Test, %			0.30 max.
Distillation Residue, % solids (2,3)			50 min.
Oil Distillate, % max.			3
NOTES:			<ol style="list-style-type: none"> 1. Provide certified non-tracking asphalt emulsion material meeting table 702.12-1 and Supplement 1128 and Supplement 1032. Emulsion will comply with all specification requirements for at least 30 days after sample date. 2. Products may use residual by evaporation to perform residual and may use the material to perform residual tests but must be submitted during the approval process in Supplement 1128. Will be required to perform residual by distillation to obtain oil distillate %. 3. Testing requirements on residual properties will be per supplier's requirements. Testing requirements will follow AASHTO procedures, if available, then ASTM standards.