Missouri Department of Transportation Specifications

1015.20.5.1 Polymer Modified Asphalt Emulsion - Tack Coat. Bituminous material for polymer modified asphalt shall be in accordance with the following:

Slow Setting Polymer Modified Asphalt Emulsion[a]					
Test on Emulsion	**Method**	**SS-1HP**		**CSS-1HP**	
		Min	**Max**	**Min**	**Max**
Viscosity, Saybolt Furol @ 25°C (77°F), s	AASHTO T 59	20	100	20	100
Particle Charge Test		Negative		Positive	
Storage Stability Test[b], 24 hr, %	AASHTO T 59	--	1	--	1
Sieve Test %	AASHTO T 59	----	0.50	----	0.50
Residue by Distillation[c], %	AASHTO T 59	57		57	
Oil Distillate by Distillation, percent	AASHTO T 59	--	--	--	--
Test on Residue from Distillation:					
Penetration, 25 °C, 100g, 5 sec	AASHTO T 49	40	90	40	90
Elastic Recovery[d], 20 cm, 5 cm/min, 60 min, %		30	--	30	--
Solubility in Trichloroethylene[e], %	AASHTO T 44	97.5	--	97.5	--

[a] The emulsified asphalt shall be in accordance with Sec 1015.20.5 of the 2011Missouri Standard Specifications for Highway Construction, except as indicated above, and shall be modified with a styrene-butadiene diblock or triblock copolymer or a styrene butadiene rubber.

[b] In addition to AASHTO T 59, upon examination of the test cylinder, and after standing undisturbed for 24 hours, the surface shall show no appreciable white, milky colored substance and shall be homogeneous brown color throughout. The storage stability test may be waved provided the asphalt emulsion storage tank at the project site has adequate provisions for circulating the entire contents of the tank, provided satisfactory field results are obtained.

[c] AASHTO T 59 shall be modified to use a lower distillation temperature of 177° C (350° F).

[d] AASHTO T 301 shall be modified to allow the residue to be obtained from distillation as long as the distillation temperature is modified as stated above. The test on residue shall be conducted at a temperature of 10° C (50° F).

[e] In lieu of performing AASHTO T 44, AASHTO T 111, Ash in Bituminous Material, may be performed with a maximum allowable percent ash of 1.0 percent.