

WVDOH MCS&T APPROVAL:	
Date:	
Approved By:	
Approval No:	

WEST VIRGINIA DIVISION OF HIGHWAYS
JOB MIX FORMULA FOR MICRO SURFACING

Producer:	
Designed By:	
Date:	

A. JOB MIX FORMULA

Component	Type	Minimum (%)	JMF	Maximum (%)	Source
Aggregate					
Mineral Filler					
Water					
Emulsion					
Residual					
Additive					

B. AGGREGATE

Moisture %				
Sand Eqv AASHTO T176				
Soundness MP 703.00.22				
Sieve	Percent Passing	Specification		Quantitative Effect of Moisture
		2FA	3FA	
3/8" (9.5mm)		100	100	
No. 4 (4.75mm)		90-100	70-95	
No. 8 (2.36mm)		60-85	45-70	
No. 16 (1.18mm)		45-70	28-50	
No. 30 (600 µm)		25-45	19-34	
No. 50 (300 µm)		18-30	12-25	
No. 100 (150 µm)		10-21	7-18	
No. 200 (75 µm)		5-15	5-15	

C. EMULSION DATA

Test on Emulsion		Result	Specification	
			CQS-1hP	CQS-1P
Residue	AASHTO T59		62.0%, Min	62.0%, Min
Particle Charge	AASHTO T59		Positive	Postive
Sieve Test	AASHTO T59		0.10%, Max	0.10%, Max
Viscosity, Saybolt	AASHTO T72		20-100 s	20-100 s
Test on Residue				
Penetration	AASHTO T49		40-90	90-200
Ash Content	AASHTO T111		1%, Max	1%, Max
Elastic Recovery	AASHTO T301		50%, Min	60%, Min
Softening Point	AASHTO T53		135F, Min	128F, Min

D. FIELD SIMULATION

Test		Result	Specification
Wet Stripping Test	ISSA TB 114		90%, Min
Wet Track Abrasion 1 hour	ISSA TB 100		538 g/m2 (50 g/ft2), Max
Wet Track Abrasion 6 day	ISSA TB 100		807 g/m2 (75 g/ft2), Max
Schulze-Breuer and Ruck	ISSA TB 144		2.0 g, Max
Trial Mix Time at 77F	ISSA TB 113		Ctrl to 120 s, Min
Trial Mix Time at 100F	ISSA TB 113		Ctrl to 35 s, Min
Cohesion at 30 min	ISSA TB 139		12 kg-cm, Min
Cohesion at 60 min	ISSA TB 139		20 kg-cm or NS, Min
Lateral Displacement	ISSA TB 147		5%, Max
Excess Asphalt/Sand Adhesion	ISSA TB 109		538 g/m2 (50 g/ft2), Max

Remarks: