

Chipseal Emulsion Specification Standardization Task Group

Rocky Mountain West Pavement
Preservation Partnership

October 4-6, 2011

Reno, Nevada

Starting Point

- Presented Last Year
- Similar Specifications but the only common requirement between all member DOTs was demulsibility.
- Survey of the member DOTs showed that several specifications were inherited and the reasoning for inconsistencies and deviations was unclear.

Unmodified Emulsions

Procedure CRS-2 CRS-2H

Emulsion Tests

Saybolt @50°C, SFS	T 59	100-400	100-400
Particle Charge	T 59	Positive	Positive
Storage Stability, %*	T 59	1.0 Max	1.0 Max
Sieve, %*	T 59	0.30 Max	0.30 Max

Residue Tests

Residue Percentage*	Footnote	65.0 Min	65.0 Min
Oil Distillate, %	T 59	2.0 Max	2.0 Max
Penetration @25°C, dmm	T 49	100-175	40-90
Ductility @25°C, cm	T 51	40 Min	40 Min

Modified Emulsions

	LMCRS-2	CRS-2P
<u>Emulsion Tests</u>		
Saybolt @50°C, SFS	50-400	50-400
Particle Charge	Positive	Positive
Storage Stability, %*	1.0 Max	1.0 Max
Sieve, %*	0.30 Max	0.30 Max
Minimum Polymer Percentage*	3.0 Min	3.0 Min
<u>Residue Tests</u>		
Residue Percentage*	65.0 Min	65.0 Min
Oil Distillate, %	2.0 Max	2.0 Max
Penetration @25°C, dmm	100-250	100-250
Ductility @25°C, cm	40 Min	40 Min
Elastic Recovery @25°C, %	55 Min	55 Min

Footnotes

- Sieve, Storage Stability – Existing AASHTO footnote – this test may be waived upon successful application.
- Residue Percentage – Recommend to leave the existing procedure but add: Failing residue test results shall be retested using the AASHTO residue by distillation procedure (350F modified, 500 unmodified) and the appropriate test procedure.
- Minimum Polymer Percentage – Expressed as solid polymer percentage per residual asphalt content.

Status

- The task group concurs with this recommendation.
- Detailed specification to be sent to the steering committee for review.