State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets

SPECIAL PROVISION FOR EMULSIFIED ASPHALTS

Effective: January 1, 2007
Revised: February 7, 2008

All references to Sections and Articles in this Special Provision shall be construed to mean specific Sections and Articles in the Standard Specifications for Road and Bridge Construction adopted by the Department of Transportation.

Replace the table after Note 2 in Article 403.02 with the following:

Type of Construction	Bituminous Materials Recommended for Weather Conditions Indicated	
	Warm [15 °C to 30 °C]* [(60 °F to 85 °F)]*	Hot [30 °C Plus]* [(85 °F Plus)]*
Prime	MC-30, PEP	MC-30, PEP
Cover Coat and Seal Coat	RS-2, CRS-2, RC-800, RC-3000, MC-800, MC-3000, SC-3000, HFE-90, HFE-150, HFE-300, HFRS-2, PEA**	RS-2, CRS-2, RC-800, RC-3000, MC-800, MC-3000, SC-3000, PG46-28, PG52-28, HFE-90, HFE-150, HFE-300, HFRS-2, PEA**

* Temperature of the air in the shade at the time of application.
** PEA is only allowed on roads with low traffic volumes

Replace the table after Note 2 in Article 406.02 with the following:

Type of Construction	Bituminous Materials Recommended
Prime (tack) on Brick, Concrete, or Bituminous Bases (Note 3)	SS-1, SS-1h, CSS-1, CSS-1h, HFE-90, RC-70
Prime on Aggregate Bases (Note 4)	MC-30, PEP
Mixture for Cracks, Joints, and Flangeways	PG58-22, PG64-22

Note 3. When emulsified asphalts are used, they shall be diluted with an equal volume of potable water. HFE emulsions shall be diluted by the manufacturer. The diluted material shall be thoroughly agitated within 24 hours of application and show no separation of water and emulsion. The diluted material shall not be returned to an approved emulsion storage tank.

Note 4. Preparation of the bituminous PEP shall be as specified in Article 403.05.

Replace the table in Article 1032.04 with the following:

Spraying Application Temperature Ranges		
Type and Grade of Bituminous Material	Temperature Ranges	
	°F min. - max.	°C min. - max.
PEP	60 - 130	15 - 55
PEA	140 - 190	60 -88
MC-30	85 - 190	30 - 90
MC-70, RC-70, SC-70	120 - 225	50 - 105
MC-250, SC-250	165 - 270	75 - 130
MC-800, SC-800	200 - 305	95 - 150
MC-3000, SC-3000	230 - 345	110 - 175
PG46-28	275 - 385	135 - 195
PG52-28	285 - 395	140 - 200
RS-2, CRS-2	110 - 160	45 - 70
SS-1, SS-1h, CSS-1, CSS-1h	75 - 130	25 - 55
SS-1hP, CSS-1hP	75 - 130	25 - 55
HFE-90, HFE-150, HFE-300	150 - 180	65 - 80
HFP, CRSP, HFRS-2	150 - 180	65 - 80
E-2	85 - 190	30 - 90
E-3	120 - 225	50 - 105
E-4	165 - 270	75 - 130

Add subparagraph (g) to Article 1032.06:

(g) Penetrating Emulsified Asphalt (PEA). The penetrating emulsified asphalt shall meet the following requirements when tested according to AASHTO T59:

Viscosity, Saybolt Fural @ 25°C (77°F),	sec:	20 - 500
Sieve Test, retained on 850 μm (No. 20) sieve, maximum,	%:	0.10
Storage Stability Test, 1 day, maximum,	%:	1
Float Test @ 60°C (140°F), minimum,	sec:	150
Stone Coating Test, 3 minutes,	:	Stone Coated Thoroughly
Particle Charge	:	Negative
pH, minimum	:	7.3
Distillation Test:		
Distillation to 260°C (500°F) Residue, minimum	%:	65
Oil Distillate by Volume, maximum	%:	3
Test on residue from distillation:		
Penetration @ 25°C (77°F), 100 g, 5 sec, minimum	dmm:	300

Replace the last sentence and table of Article 1032.06 with the following:

The different grades are, in general, used for the following.

Grade	Use
SS-1, SS-1h, CSS-1, CSS-1h, HFE 90, SS-1hP, CSS-1hP	Tack or fog seal
PEP	Bituminous surface treatment prime
RS-2, HFE 90, HFE 150, HFE 300, CRSP, HFP, CRS-2, HFRS-2, PEA	Bituminous surface treatment
CSS-1h Latex Modified	Microsurfacing