## **EXPECTED IMPLEMENTATION JULY 2021**

## 971 PAVEMENT MARKING MATERIALS (REV 10-5-20) (FA 12-14-20) (7-21)

SUBARTICLE 971-2.2 is deleted and the following substituted:

**971-2.2 Specific Properties**: The large (Type 3 or larger) glass spheres used for drop on beads shall have an adhesion coating. Type 1 glass spheres used for drop on beads shall have a dual coating. Beads used in the intermix of materials are not required to be coated.

The following physical requirements apply:

Table 971-3					
Property	Test Method	Specification			
Roundness*	AASHTO R 98	Min: 70 % by weight			
Roundness**	AASHTO R 98	Min: 80% by weight			
Refractive Index*	Becke Line Method (25+/-5C)	1.5 minimum			
Refractive Index**	Becke Line Method (25+/-5C)	1.9 minimum			
*Type 1 3 4 and 5 heads					

\*Type 1, 3, 4 and 5 beads \*\*High Index beads

Table 971-4					
	Percent by Mass Passing Designated Sieve (AASHTO R 98)				
Sieve Size	Grading Designation				
	Type 1	Type 3 (FP	Type 4 (FP	Type 5 (FP	High Index
	(AASHTO)	96)	96)	96)	High index
No. 8				100	
No. 10			100	95 - 100	
No. 12		100	95 - 100	80 - 95	
No. 14		95 - 100	80 - 95	10 - 40	
No. 16	100	80 - 95	10 - 40	0 - 5	100
No. 18		10 - 40	0 - 5	0 - 2	
No. 20	95 - 100	0 - 5	0 - 2		95 - 100
No. 25		0 - 2			
No. 30	75 - 95				55 - 85
No. 40					15 - 45
No. 50	15 - 35				0 - 5
No. 80					
No. 100	0 - 5				

SUBARTICLE 971-3.3 is deleted and the following substituted:

**971-3.3 Physical Requirements:** Test laboratory samples in accordance with ASTM E811 and E1349 and also meet the following criteria:







## **EXPECTED IMPLEMENTATION JULY 2021**

Table 971-6						
Property	Test Method	Minimum	Maximum			
Density	ASTM D1475	$13.5 \pm 1.4 \text{ lb/gal}$	-			
Viscosity at 77°F	ASTM D562	80 KU	100 KU			
Fineness of Grind	ASTM D1210	3(HS)				
Dry Opacity at 5 mils WFT	ASTM D2805	0.92	-			
Bleed Ratio	ASTM D868	0.95	-			
Flexibility	ASTM D522 Method B	Pass	-			
Abrasion Resistance	ASTM D4060	Pass	-			

SUBARTICLE 971-4.3 is deleted and the following substituted:

**971-4.3 Physical Requirements:** Test laboratory samples in accordance with ASTM E811 and E1349. Samples shall meet the following criteria:

Table 971-8						
Property	Test Method	Minimum	Maximum			
Density	ASTM D1475	$13.5 \pm 1.4 \text{ lb/gal}$	N/A			
Viscosity at 77°F	ASTM D562	80 KU	100 KU			
Fineness of Grind	ASTM D1210	3(HS)				
Dry Opacity at 5 mils WFT	ASTM D2805	0.92	-			
Bleed Ratio	ASTM D868	0.95	-			
Flexibility	ASTM D522 Method B	Pass	-			
Abrasion Resistance	ASTM D4060	Pass	-			