



# Florida Department of Transportation

**RICK SCOTT**  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

**ANANTH PRASAD, P.E.**  
SECRETARY

July 21, 2011

Monica Gourdine  
Program Operations Engineer  
Federal Highway Administration  
545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

Re: Office of Design, Specifications  
Section 971  
Proposed Specification: **9710303 Traffic Marking Materials. REVISED**

Dear Ms. Gourdine:

We are submitting, not for approval, a copy of the above referenced Supplemental Specification.

The highlighted text was inadvertently omitted in the original submittal, which was approved by your office on July 20, 2011.

If you have any questions relating to this specification change, please call Rudy Powell, State Specifications Engineer at 414-4280.

Sincerely,

Signature on file

Rudy Powell, Jr., P.E.  
State Specifications Engineer

RP/dt

Attachment

cc: Calvin Johnson, Chief Civil Litigation  
Florida Transportation Builders' Assoc.  
State Construction Engineer

**TRAFFIC MARKING MATERIALS.****(REV 7-21-11)**

SUBARTICLE 971-3.3 (of the Supplemental Specification) is deleted and the following substituted:

**971-3.3 Physical Requirements:** The material shall meet the following criteria:

Property	Test Method	Minimum	Maximum
Density	ASTM D 1475	13.5 ± 1.4 lb/gal	-
Viscosity at 77°F	ASTM D 562	80 KU	100 KU
Fineness of Grind	ASTM D 1210	3 (HS)	
Dry Opacity at 5 mils WFT	ASTM D 2805	0.92	-
Bleed Ratio	ASTM D 969	0.95	-
Flexibility	ASTM D 522 Method B	Pass	-
Abrasion Resistance	971-3.3.2	Pass	-

**971-3.3.1 Set To Bear Traffic Time:** The material shall set to bear traffic in not more than two minutes.

**971-3.3.2 Abrasion Resistance:** Test four samples per LOT using a Taber Abrader. The paint shall be applied to specimen plates using a drawdown blade having a clearance of 26 mils. Air dry each sample for 30 minutes and bake at 220°F for 18 hours. Clean with a soft brush and weigh each sample. Abrade samples for 1,000 cycles with 500 g weights and CS-10 wheels. Clean the samples with a soft brush and weigh again. The average weight loss for the four plates shall not exceed 50 mg per plate.

**971-3.3.3 Retroreflectivity:** The white and yellow pavement markings shall attain an initial retroreflectance of not less than 300 mcd/lx·m<sup>2</sup> and 250 mcd/lx·m<sup>2</sup>. The retroreflectance of the white and yellow pavement markings at the end of the six month service life shall not be less than 150 mcd/lx·m<sup>2</sup>.

SUBARTICLE 971-4.3 (of the Supplemental Specification) is deleted and the following substituted:

**971-4.3 Physical Requirements:** The material shall meet the following criteria:

Property	Test Method	Minimum	Maximum
Density	ASTM D 1475	13.5 ± 0.37 lb/gal	N/A
Viscosity at 77°F	ASTM D 562	80 KU	100 KU
Fineness of Grind	ASTM D 1210	3 (HS)	
Dry Opacity at 5 mils WFT	ASTM D 2805	0.92	-
Bleed Ratio	ASTM D 969	0.95	-
Flexibility	ASTM D 522 Method B	Pass	-
Abrasion Resistance	971-4.3.2	Pass	-

**971-4.3.1 Set To Bear Traffic Time:** The material shall set to bear traffic in not more than two minutes.

**971-4.3.2 Abrasion Resistance:** Test four samples per LOT using a Taber Abrader. The paint shall be applied to specimen plates using a drawdown blade having a clearance of 26 mils. Air dry each sample for 30 minutes and bake at 220°F for 18 hours. Clean with a soft brush and weigh each sample. Abrade samples for 1,000 cycles with 500 g and CS-10 wheels. Clean the samples with a soft brush and weigh again. The average weight loss for the four plates shall not exceed 50 mg per plate.

**971-4.3.3 Retroreflectivity:** The white and yellow pavement markings shall attain an initial retroreflectance of not less than 300 mcd/lx·m<sup>2</sup> and 250 mcd/lx·m<sup>2</sup>, respectively. The retroreflectance of the white and yellow pavement markings at the end of the six month service life shall not be less than 150 mcd/lx·m<sup>2</sup>.

SUBARTICLE 971-8.3 (of the Supplemental Specification) is deleted and the following substituted:

**971-8.3 Physical Requirements:** The material shall meet the following criteria:

Property	Test Method	Minimum	Maximum
Adhesion to Concrete	ASTM D 4541, ASTM D 7234 or ACI 503	Concrete Failure	-
Hardness	ASTM D 2240 (Shore D)	75	-
Abrasion Resistance	971-8.3.2	Pass	-

**971-8.3.1 Set To Bear Traffic Time:** The material shall set to bear traffic in not more than two minutes.

**971-8.3.2 Abrasion Resistance:** Test four samples per LOT using a Taber Abrader. The material shall be applied to specimen plates using a drawdown blade having a clearance of 26 mils. Air dry each sample for 30 minutes and bake at 220°F for 18 hours. Clean with a soft brush and weigh each sample. Abrade samples for 1,000 cycles with 500 g weights and CS-10 wheels. Clean the samples with a soft brush

and weigh again. The average weight loss for the four plates shall not exceed 50 mg per plate.

**971-8.3.3 Retroreflectivity:** The white and yellow pavement markings shall attain an initial retroreflectance of not less than  $450 \text{ mcd/lx}\cdot\text{m}^2$  and not less than  $350 \text{ mcd/lx}\cdot\text{m}^2$ , respectively. The retroreflectance of the white and yellow pavement markings at the end of the three year service life shall not be less than  $150 \text{ mcd/lx}\cdot\text{m}^2$ .