9710000 Traffic Marking Materials
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comment: (11-21-13, Internal) Whoa … I thought we were getting rid of our own yellow color box, especially retained color, and going to national color box. Why do we continue to make this harder than it needs to be?

Response: Paul originally proposed a 971 change that eliminated the color box. This revision was discussed with Construction, Specifications and Paul during that internal review. It was decided not to move forward with the removal of the box entirely at this time until we decided how best to implement something that everyone including industry could agree on.
No changes made.

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Paul Gentry
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Comment: (11-22-13, Internal)
1. 971-5.5 Physical Requirements (table): What values for minimum and maximum with different test method (different reproducibility limits)?

~~Specific Gravity~~	~~Water displacement~~	~~1.9~~	~~2.5~~
Indentation Resistance	ASTM D ~~2240~~ 7735 * Shore Durometer, A2	40	75
Impact Resistance	ASTM D256, Method A	1.0 N-m	-

Response: They should remain unchanged for now.
No changes made.

2. 971-5.5 Physical Requirements (table): This should be 100g - not 1000mg.

Property	Test Method	Minimum	Maximum
Flash Point	ASTM D92	475°F	-
*The durometer and panel shall be at 115~~0~~°F with a ~~1000~~ gm ~~4.4 lb~~ load applied. Instrument measurement shall be taken after 15 seconds.			

Response: I discussed this with the committee members since our old standard was 4.4 lbs. and there is a typo in the ASTM, it should be 1000**g**.
Change made.

3. Wouldn't the same changes in questions 1 and 2 above apply to the Tables in 971-6.5, 971-9.4, and 971-10.4?

Response: Yes, the same changes would apply for these sections. We will revise changes to include these sections.
Changes made.
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Comment: (12-9-13)
In reference to the changes to section: 971.1.6 color spec: Revised spec refers to CFR 665 Table 1 Appendix Subpart F. Table 1, however is for Reflective Materials (in general). Should not the reference be to Table 5 which refers to Reflective Pavement Marking Materials. I believe that would be more appropriate.

Response:

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Anonymous

Comment: (12-12-13)
971-10.4.3 - Suggest removing "also".

Response:

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Comment: (12-29-13)
Why are there different temperature requirements and “Minimum – Maximum” number for the Indentation testing requirements as referenced below? ASTM D7735 states a reference temperature of 115 degrees F +/- 3 degrees F in the test method 9.4.
Why are there also different minimum – maximum numbers stated below. It is very possible to have the same Thermoplastic material be able to meet the requirements for all 3 material specifications 711, 701 and 702. 971-5.5 Thermoplastic Indentation Resistance ASTM D7735 Type A Durometer Minimum 40 Maximum 75 `115 degrees F 1000 g. load 971-9 Thermoplastic Material for AV Traffic Stripes ASTM D7735 Type A Durometer Minimum 65 80 degrees F 1000 g. load 971-10 Thermoplastic material for Wet Weather Pavement Markings ASTM D7735 Type A Durometer Minimum 40 90 degrees F 1000 g. load

971-5 Thermoplastic Materials for Traffic Stripes.

→ **971-5.5 Physical Requirements:** Laboratory samples shall be prepared in accordance with ASTM D4960 and shall meet the following criteria:¶

Property	Test Method	Minimum	Maximum
Water Absorption	ASTM D570	-	0.5%
Softening Point	ASTM D36	195°F	-
Low Temperature Stress Resistance	AASHTO T250	Pass	-
Specific Gravity	Water displacement	1.9	2.3
Indentation Resistance	ASTM D7735~~2240~~* Type A ~~Shore~~ Durometer~~, A2~~	40	75
Impact Resistance	ASTM D256, Method °A	1.0 N m	-
Flash Point	ASTM D92	475°F	-
*The durometer and panel shall be at 115~~0~~°F with a 1000 g~~m 4.4 lb~~ load applied. Instrument measurement shall be taken after 15 seconds.			

971-6 Preformed Thermoplastic Materials for Traffic Stripes.

→ **971-6.5 Physical Requirements:** Laboratory samples shall be prepared in accordance with ASTM D4960 and shall meet the following criteria:

Property	Test Method	Minimum	Maximum
Softening Point	ASTM D36	195°F	-
Low Temperature Stress Resistance	AASHTO T250	Pass	-
Indentation Resistance	ASTM D7735~~2240~~* *Type A ~~Shore~~ Durometer, ~~A2~~	40	75
Impact Resistance	ASTM D256, Method °A**	1.0 N·m	-

*The durometer and panel shall be at 11~~5~~0°F with a *1000* g ~~w 4.4 lb~~ load applied. Instrument measurement shall be taken after 15 seconds.
**The test specimen for ASTM D256 shall be 1 in. x 1 in. x 6 in. and shall not be notched.

971-9 Thermoplastic Material for Audible and Vibratory Traffic Stripes.

→ **971-9.4 Physical Requirements:** Laboratory samples shall be prepared in accordance with ASTM D4960 and shall meet the following criteria:

Property	Test Method	Minimum	Maximum
Water Absorption	ASTM D570	-	0.5%
Softening Point	ASTM D36	210°F	-
Low Temperature Stress Resistance	AASHTO T250	Pass	-
Specific Gravity	Water displacement	1.9	2.3
Indentation Resistance	ASTM D7735~~2240~~* *Type A ~~Shore~~ Durometer, ~~A2~~	65	-
Impact Resistance	ASTM D256, Method °A	1.0 N·m	-
Flash Point	ASTM D92	475°F	-

*The durometer and panel shall be at 80°F ~~, but not exceeding 90°F~~ with a *1000* g ~~w 4.4 lb~~ load applied. Instrument measurement shall be taken after 15 seconds.

Response:

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