

9750700 STRUCTURAL COATING SYSTEMS.
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Rudy Powell
414-4280

Comments: (10-10-11)

(1) 975-7.1 General Requirements:

975-7.1 General Requirements: Anti-graffiti coatings intended for use under this specification shall be of a composition capable of preventing the adhesion of graffiti and facilitating the removal of graffiti acrylic, polyurethane, and alkyd spray on coatings. All anti-graffiti coatings shall possess the physical and handling characteristics that are compatible with the requirements of Section 563.

Should this be “paint”? As per the testing tables, it seems we are only concerned with paint.

Response: Paints are coatings. It probably should be consistent. I think changing the word paint in the table to coatings is the better fix.

From the Specs Office: Language changed to “.....acrylic, polyurethane, and alkyd spray paint.”

(2) 975-7.1 General Requirements: (e)

~~e. Clear coats must contain a UV degradable color for inspection purposes. UV degradable color must dissipate in a reasonable time period to allow inspection but not detract from visual impact of the structure.~~

If we delete this, how will application be verified?

Response: These dyes are destroyed by the heat required to apply sacrificial AG coatings. I have not seen one AG coating in the state that contained a UV dye, so this was not being practiced. The UV dyes are not compatible with the silicon elastomer water cleanable coatings. For these reasons I thought it best to remove this language.

From the Specs Office: For Industry Review, the language will remain. May change, depending on the comments received.

After reviewing comments from Industry Review, this requirement will be deleted. Change made.

(3) Tables:

Outside door Exposure Testing -- Sacrificial		
Property	Test Method	Requirement
Sacrificial Coating removability	Per Manufacturer's specifications ASTM G 7. 6 months exposure at FDOT test site	Complete removal of material from substrate

Outdoor Exposure Testing -- Water Cleanable		
Property	Test Method	Requirement
Cleanability	ASTM G 7. 6 months exposure at FDOT test site	Complete removal of solvent based acrylic, polyurethane, and alkyd based spray paint. No delamination or visual defects.

Shouldn't the highlighted requirements be same?

Response: We can add the language to the sacrificial coating requirement, but it would provide little value due to the nature of this type of coating. The current requirement is that the complete AG coating must be removed. Since the AG coating is removed, any graffiti applied to the top of it would be simultaneously removed. This has been the case historically.

From the Specs Office: Language has been added to sacrificial coating requirements for consistency. Also, “Outdoor Exposure Testing – Water Cleanable” has been renamed to “Outdoor Exposure Testing – Non-Sacrificial” and is now located under the “Laboratory Testing – Non-Sacrificial” table.

Karen Byram
414-4354

Comments: (10-13-11)

1. What is the justification for adding a section of Water Cleanable? All anti-graffiti coatings must be removable or cleanable by non-proprietary solvents and that includes water. Water Cleanable materials are not defined differentiating them from other anti graffiti sacrificial coatings in either 563 or 975. Additionally, Sacrificial Exposure Testing and Water Cleanable testing of materials are not defined in the Outdoor Exposure testing tables. The test method for the material removal (ASTM G7) is an exposure test only. The two tables should be combined and the requirement needs to be defined (see ASTM D 6578 method A - visual or method B - instrumental).

Response: From the Specs Office – Water Cleanable Anti-Graffiti Coatings have been included with the non-sacrificial coatings.

Ray Haverty
410-5531

Comments: (10-12-11)

1. First in 975-7.1 a section “e. ~~Recom.~~” was removed and the following “d. and e.” where not change to “c. and d.”

Response: This has been corrected.

2. Second within 975-7.2 in the third line it reads “Submit four 4 inch by 8 inch fiber cement” this is hard to understand as it is would it be better “Submit four, 4 inch by 8, inch fiber cement” with commas added?

Response: Thank you for your comment. No changes made.

Karen Byram
414-4354

Comments: (10-25-11)

1. Add/Delete highlighted text.
Add (d): by identifying water cleanable, we can put this in QPL comments to assist with 563 “do not use on steel”.

Response: Water Cleanable is a type of non-sacrificial coating and has been included under that designation. Change made.

Delete (e) Even though UV coating states “reasonable time” the UV is gone long before the inspector arrives (days later). It is a good idea, but it does not achieve the desired goal.

975-7.1 General Requirements: Anti-graffiti coatings intended for use under this specification shall be of a composition capable of preventing the adhesion of ~~graffiti~~ and facilitating the removal of ~~graffiti~~ *acrylic, polyurethane, and alkyd based spray on coatings paint*. All anti-graffiti coatings shall possess the physical and handling characteristics that are compatible with the requirements of Section 563.

Anti-graffiti coatings shall contain less than 5.0 lb/gal volatile organic compounds (VOC) as defined by 40 CFR Part 59, Subpart D, and evaluated as per ASTM D 3960.

The manufacturer ~~will~~ *shall* supply the following additional information:

a. ~~Cleaning~~ *Graffiti removal instructions, including any solvents or other and* materials, as ~~applicable~~ *necessary*. ~~Surfaces~~ *Graffiti removal* must be ~~cleanable~~ *accomplished* with nonproprietary cleaners as defined in ASTM D 6578.

b. Sacrificial Coating Removal instructions, as applicable.

~~c. Recommended base coat, as applicable.~~

~~d. Identification of coating system and type, as applicable components.~~

d. Identification of Water Cleanable Coating designation.

~~e. Clear coats must contain a UV degradable color for inspection purposes. UV degradable color must dissipate in a reasonable time period to allow inspection but not detract from visual impact of the structure.~~

Response: After reviewing the comments received during Industry Review, this requirement will be deleted. Change made.

2. Table: Laboratory Testing – Non-Sacrificial: Add/Delete the highlighted text.

Laboratory Testing - Non-Sacrificial		
Property	Test Method	Requirement
Cyclic Weather Testing	AASHTO R-31	No blistering, cracking, checking, chalking, or delamination; color change less than 3 Delta E CIE LAB units; Retention of 60° Gloss ratio >= 0.80
Graffiti Resistance	ASTM D 6578, Use identified marking materials; initial and recleanability <i>Complete removal of solvent based acrylic, polyurethane, and alkyd spray paint; and after exposure; initial and recleanability</i>	Cleanability Level 8, 9, or 10.
Fluid Resistance	ASTM D 1308 — s <i>Spot Test</i> ; Paint Thinner, Gasoline	No blistering, discoloration, softening or adhesion loss.

Response: No change made.

4. Table: Laboratory Testing – Non-Sacrificial and Outdoor Testing – Sacrificial: Add/Delete highlighted text. – Leave in text “Per Manufacturer’s specifications” because there is no other

identified method. In the outdoor exposure, there are no instructions to the testing facility on how to remove the graffiti or how to quantify “complete removal”. The reference to ASTM D 6578 is only in the lab testing portion, so I have suggested the above. Alternately, you could reference ASTM D 6578.

Laboratory Testing - Sacrificial		
Property	Test Method	Requirement
Cyclic Weather Testing	AASHTO R-31, no salt fog, 95°F, 0%- 90% Relative Humidity, 500 hours, alternating RH every 100 hours	No melting or disbondment
Outdoor Exposure Testing - Sacrificial		
Property	Test Method	Requirement
Sacrificial Coating removability	Per Manufacturer's specifications <i>ASTM G-7: 6 months exposure at FDOT test site</i>	Complete removal of material <i>solvent based acrylic, polyurethane, and alkyd based spray paint</i> from substrate

Response: Manufacturer does not provide test methods for outdoor exposure and if they did it would very oriented toward the success of their product. No change made.

5. Table: Outdoor Exposure Testing – Non-Sacrificial Water Cleanable: Add/Delete highlighted text. Add/Delete highlighted text. –Same comment as #4 above.

<i>Outdoor Exposure Testing – Non-Sacrificial Water Cleanable</i>		
<i>Property</i>	<i>Test Method</i>	<i>Requirement</i>
<i>Cleanability</i>	Per Manufacturer's specifications <i>ASTM G-7: 6 months exposure at FDOT test site</i>	<i>Complete removal of solvent based acrylic, polyurethane, and alkyd based spray paint. No delamination or visual defects.</i>

Response: See response to #4.
