Comments Received From Industry Review

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Ronda Daniell

File: 9750900 - Structural Coating Materials
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Date: Wednesday, March 08, 2006
Time: 08:05:43 AM

Comments:

9750900- Structural Coating Materials- Why is the English factors being removed in this revision in section 975-9.1? Example 600g/L is staying and being removed is 5.0 lb/gal. In the requirements it references English.

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Tonii Brush

File: 9750900 - Structural Coating Materials
Username: Tonii Brush
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Date: Wednesday, March 08, 2006
Time: 08:04:42 AM

Comments:

In the spec shown below the English measure is struck through and the metric left. In the other specs the metric is struck through and the English left. Is there a reason to leave the metric measure and not the English?

975-9.1 General Requirements: Anti-graffiti coatings intended for use under this specification shall be of a composition to be capable of preventing the adhesion of graffiti and/or facilitating the removal of graffiti. All anti-graffiti coatings must possess the physical and handling characteristics that are compatible with the requirements of Section 563. Anti-graffiti coatings shall contain less than 600 g/L [5.0 lb/gal] volatile organic compounds (VOC) as defined by 40 CFR Part 59, Subpart D. The manufacturer will supply the following additional information:

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Paul Vinik

Here are my comments on sub-section 975-9.

First, I really do not feel that antigraffiti coatings are worthwhile. There are better (more aesthetic and cheaper) ways of handling graffiti than anti-graffiti coatings. It is my opinion that these types

of coatings are not beneficial and I have adopted this position after input from leaders with Carboline and Sherwin Williams. That being said, here are my specific comments to Sect. 975-9.

1) There is very little distinction regarding sacrificial coatings vs. non- sacrificial. There is overlap between the material section 975-9 and the application section 563. Both are calling for different abrasion testing (redundant) and there are conflicting VOC requirements. This sub-section would eliminate all sacrificial coatings. Traditionally sacrificial coatings are composed of a paraffin wax, these products will not withstand abrasion testing. They also are not formulated for color or gloss. The revision would necessitate performance in both.

2) Permanent coatings have a cleaning interval in which they must be cleaned or they will not perform to prevent permanent blemishes. Cleaning intervals are not addressed.

3) There are no adhesion requirements. These coatings would be applied over acrylics, ureas, urethanes, class 5 coatings, etc. Adhesion to different substrates is a huge issue and must be defined.

4) The VOC requirement is in excess of the 1999 EPA (450 g/L) level for industrial maintenance coatings. While 600 g/L is acceptable for anti-graffiti coatings, these coatings may get used in lieu of other top coats to circumvent this requirement. We have not deviated from the 400 g/L stated in the general section of 975 for other coating types and I do not recommend deviating for Anti-graffiti coatings. We should keep our VOC requirements standard throughout all coating classifications.

5) Units specified for impact resistance should be in.lbf. instead of in.lb, just a little more precise.

6) Accelerated weathering is the wrong title. To be consistent with AASHTO R-31, this referenced test method should be Cyclic Weather Testing. Also, a Delta E of 1 will exclude all coatings from QPL approval. Section 563 requires that all non-sacrificial coatings be urethanes and acrylics. Urethanes and acrylics will not pass this criteria. Siloxanes and fluoropolymers might qualify but would be excluded because of the chemistry requirements of Sect 563 and cost upwards of $100/gallon. Because of the cost of these coatings, they are not typically used for anti-graffiti purposes. The color shift of 1 Delta E is referenced in ASTM D 6578, but is the difference measured before and after cleaning, not after weather cycling. I suggest removal or something in the order of 3 to 5 Delta E's.

7) The Fluid resistance test is not necessary and is overkill. The Methyl Ethyl Ketone (MEK) rub is sufficient. MEK is a stronger solvent than either gasoline or paint thinner. Also, ASTM D1308 calls for immersion testing. These coatings are not going to be subjected to immersion service. Also, ASTM D 1308 states that the duration of testing should be agreed upon by the tester and the manufacturer. If this method is to be retained, a duration needs to be defined by the dept and should not be subject to approval by the manufacturer.

Thanks,

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