

9750600 STRUCTURAL COATING SYSTEMS –
CLASS 5 APPLIED FINISH COATINGS
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Barry Smith

Comment: (Internal 5-13-10)

1. 975-6.2.1 States: Coating thickness and application shall be compliant with the manufacturer's published technical data sheet and ASTM D 4587. ASTM D 4587 states that test panels be prepared "consistent with anticipated use or mutually agreed upon". S400-15.2.6.4 Application: dictates the material be applied at a rate of 50±10 ft²/gal.

Shouldn't the product be tested as it will be used? Application rates vary by manufacturer/product technical data sheets.

Response:

2. Fluorescent UV-Condensation Exposure under laboratory testing lists ASTM D 4587, 2000 hours. There are four test cycles listed in table I of ASTM D 4587.

Should the test cycle be specified for clarification(#2 Industrial Coatings)?

Response:

Steven King
954-777-4526

Comments: (6-9-10)

Prepare test panels by applying the finished coating at a rate of 50 +-plus or minus 10ft² square foot per/ gallon.

Should that read plus or minus 10 square feet per gallon?

Response: From the Specifications Office – this has been changed.

William Sears
954-934-1115
william.sears@dot.state.fl.us

Comments: (6-9-10)

1. The Departments Qualified Products List does not address the texture of the Class 5 finish. Contractors are providing a Class 5 finish without mineral aggregate filler because they can reduce the spread rate.

Response:

2. Specification 400-15.2.6.5 Finish Product attempts to address texture. Recommend stating in 400-15.2.6.5 that precast concrete requiring Class 5 finish shall have the smooth mineral aggregate texture and cast-in-place concrete shall have a rough mineral aggregate texture. No fine texture without mineral aggregate will be acceptable.

Response:

3. Specification 400-15.2.6.3 should require pressure cleaning rather than relying on "if there is no reaction between the muric acid and the concrete, pressure wash the concete".

Response:

Mario Paredes
352-262-6673
mario.paredes@dot.state.fl.us

Comments: (7-1-10)

Specification is not clear as to who will perform the test. FDOT or independent lab? The letter from Rudy indicates that the department will test, but the spec doesn't clearly define it.

Response:

Sid Oakes
Sherwin-Williams
336-324-0614
sid.oakes@sherwin.com

Comments: (7-2-10)

In response to the proposed change to the above referenced specification, we respectfully offer the following information and comments.

- Sherwin-Williams has contracted for and is currently performing (or has already completed) all of the required testing for the Class 5 Coating based upon the currently published 975 specification.
- As of June 25th, our coating had completed 3696 hrs of the 5040 hrs of Cyclic Weathering testing based on the current specification, with no blisters cracks or loss of adhesion.
- It appears that the key proposed change, is to remove the salt fog portion of the currently referenced Cyclic Weathering test (R-31) and only require 80% of the UV Exposure portion of the test currently specified. The requirement of continuous Salt Fog (B117) however, remains in the proposed change to the specification.
- If the state is seeking to gather blister data (salt fog) and stability data from the UV Exposure, it seems odd to separate the two test procedures. When performed in sequence

with one another, they more closely mimic weathering cycles than either does individually, and typically the test (cyclic weathering) merging the two, is more demanding on coating systems. In other words, if the state is seeking 2000hrs of Salt Fog data and 2000hrs of UV data, why not require 4000hrs of Cyclic Weathering and not have a separate UV exposure or a separate Salt Spray requirement?

- Estimated costs associated with the current test protocols exceed \$11-12K. The proposed changes would still require separate UV & salt spray tests however the proposed elimination of the salt spray portion of the weathering test, would certainly result in some overall cost savings, perhaps as much as \$2500-3000. Likewise, the elimination of the separate salt fog requirement & maintaining the cyclic weathering requirement (UV & salt fog), either 4000 or 5000 hrs would also result in cost savings of approx \$2500-2700.
- Sherwin-Williams has already completed the separate (2000hr) salt fog requirement and at 4000hrs of the R-31 Cyclic Weathering test, we will have completed the proposed 2000hr UV requirement. We do intend to continue the testing currently contracted, including the complete 5040hrs of Cyclic Weathering (2540hrs of UV & 2540hrs of salt spray) and will be happy to share those results with FL at completion.

I trust that this information is complete and if further comment, explanation or discussion is desired, please don't hesitate to contact me.

Response:
