

5600204 COATING NEW STRUCTURAL STEEL
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Trey Tillander
414-4140

Comment: (10-3-12)

Regarding “Alternatively, any electronic conductivity meter approved for use by the State Materials Office (SMO) may be used.” - how will the Contractor know which meters are approved? Does SMO have a published list?

Response: The language was changed as follows:

560-2.4 Soluble Salts Test Kit: Use a soluble salts test kit in accordance with SSPC-Guide 15 utilizing a Class A retrieval method. Ensure the test sleeve or cell creates a sealed, encapsulated environment during ion extraction and is suitable for testing all structural steel surfaces. *As an alternative, the following any use only electronic conductivity meters approved for use by the State Materials Office (SMO) and listed on the SMO website Engineer may be used: ARP soluble salt meter, Model #RPCT-070001, the Salt Smart manufactured by Innovative Productivity Inc., or a Brestle Patch in conjunction with a Horiba B-173 Twin Cond Conductivity Meter.*

The Engineer, as part of the duties and authority assigned to him/her, will approve/reject the use of the meters. The Department would like the opportunity to evaluate any meter for accuracy, repeatability and suitability prior to its use. (It’s more than likely that we have already evaluated the meter.) In addition, meters that have not been previously evaluated will be evaluated when requested. This issue was discussed and the current language I believe is what was agreed upon by Design, Materials, and Construction.
Change made.

Rudy Powell
414-4280

Comment: (10-12-12/10-15-12)

560-2.4 – What is the basis for this approval by SMO? Those requirements should be stated in the spec.

The changes to 560-2.4 and 560-6.3 are not supported by SCO.

1. 560-2.4:

~~→ 560-2.4 Soluble Salts Test Kit: Use a soluble salts test kit in accordance with SSPC-Guide 15 utilizing a Class A retrieval method. Ensure the test sleeve or cell creates a sealed, encapsulated environment during ion extraction and is suitable for testing all structural steel surfaces. Alternatively, the following any electronic conductivity meters approved for use by the State Materials Office (SMO) may be used: ARP soluble salt meter, Model #RPCT-070001, the Salt Smart manufactured by Innovative Productivity Inc., or a Brestle Patch in conjunction with a Horiba B-173 Twin Cond Conductivity Meter.~~

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SUBARTICLE 560-2.5 (Page 743) is deleted and the following substituted: ¶

→ 560-2.5 Abrasives: Use properly sized abrasives to achieve the required cleanliness and

Comment [cn982ps1]: This sentence should be in active voice and so should start with "Use". If electronic conductivity meters are to be approved by the SMO, will there be an online list of approved meters or will this list be kept internally by SMO for approval on inquiry basis? Some guidance should be given in this Article about how the Contractor obtains approval. ¶

Response: See response to previous comment.

2. 560-6.3:

→ **560-6.3 Quality Control Inspectors in the Shop and Field:** Provide documentation to the Engineer that all personnel performing quality control inspections are certified at a minimum as a National Association of Corrosion Engineers (NACE) Coating Inspector Level 1 or a SSPC Level 1 Bridge Coating Inspector and that they report directly to ~~a~~ *the Contractor's* Quality Control Supervisor who is certified either as a NACE Coating Inspector Level 3 or a SSPC Level 2 Bridge Coating Inspector. ¶

Comment [cn982ps 2]: The problem with this change is that for projects that have incidental painting, the Contractor (Prime Contractor as defined in the spec) does not have a QC supervisor but instead has a QC Manager that is very unlikely to have a NACE Level 3 certification. The painting subs QC supervisor must have a NACE level 3 but the sub is not the Contractor so some revision is needed here. ¶

Response: The revision to this subarticle was withdrawn. Change made.

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Comment: (11-16-12)

Regarding the sentence, "electronic conductivity meters approved for use by the Engineer may be used." Do we want to put this responsibility on the Engineer? I don't know if the Engineer will have the expertise to make a judgment on such a specialized piece of equipment. If we are to be Consistent, Predictable and Repeatable then the Spec should address the acceptance criteria of the meters.

Response: See response to comment from Trey Tillander.

Greg Richards
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Comment: (12-7-12)

560-9.7 Stripe Coating: Add - *Stripe coats for each coating layer except clear coat when required.*

560-9.7 Stripe Coating: Apply stripe coats to achieve complete coverage and proper thickness on welds, corners, crevices, sharp edges, bolts, nuts, rivets, and rough or pitted surfaces. *Subsequent coats shall not be applied until the stripe coat has fully cured per the manufacturer's product data sheet for recoating.* Stripe coating is not required for the inside surface area of all steel box girders.

Response: Agreed. The language has been modified as follows:

560-9.7 Stripe Coating: Apply stripe coats *for both intermediate and finish coats* to achieve complete coverage and proper thickness on welds, corners, crevices, sharp edges, bolts, nuts, rivets, and rough or pitted surfaces. *A stripe coat of clear coating is not required. Do not apply subsequent coats shall not be applied until the previous stripe coat has fully cured per the manufacturer's product data sheet for recoating.* Stripe coating is not required for the inside surface area of all steel box girders.

Change made.

Brenda Soper
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Comment: (12-13-12)

1. 560-7.5 – the requirement of testing every 1000 s.f. is an overkill. We have been performing these tests since FDOT implemented the requirement and have yet to find any soluble salts on any of the surfaces tested on any of our new construction projects. As this just adds more money to the cost of a project, possibly the Specification could be clarified to require less testing on new construction.

Response: This specification governs coating applications at many facilities nationwide. While your facility may not have an exposure to soluble salts, this specification has to be appropriate in areas that do have high sulfate and nitrate atmospheres.
No change made.

2. 560-2.4 – The use of the electronic conductivity meter is appreciated by all in the field, however, the comment included in this section “approved for use by the Engineer” is vague. What engineer? Why should we be required to submit, in addition to all other submittals currently required, a submittal for the conductivity meter? These instruments are expensive and we, as applicators, could not possibly be expected to purchase a Hedon Meter, for example, just because some engineer is uninformed and is insisting on the use of this particular costly unit. We should be allowed to purchase any meter that produces the required results as listed in the Specification and be allowed to use that same meter on all FDOT projects.

Response: The Engineer is the Director, Office of Construction acting directly or through duly authorized individuals. You are not required to submit the instrument; only obtain approval for prior to its usage. Also, see response to comment from Trey Tillander.

3. 560-9.3 – The comment “apply caulk after the intermediate coat has fully cured and before application of the finish coat” is unrealistic. Currently we apply the caulk when we are working the bolts because the caulk requires a 4 day cure out prior to painting. The intermediate coat (epoxy) requires 4-8 hours to cure for recoat. This only means that the epoxy has cured sufficiently to allow for off-gasing, but not necessarily fully cured. The data sheet does not indicate the extent of “fully” cure. Your new requirement has just added 5 more days to the schedule **per lane** and deducted 5 days from our maximum recoat window. This again, increases the cost of the project tremendously.

Response: There are several caulks available that cure in 24 hours. Most epoxies are fully cured in 24 hours. While these factors may increase project time, they are advantageous to producing a quality coating product. However, your suggestion warrants change and I have revised the first sentence of 560-9.3 as follows:

560-9.3 Sealing Using Caulk: *Apply caulk after the intermediate coat has ~~fully~~ cured to a condition suitable for recoating in accordance with the manufacturer’s directions, and before application of the finish coat.*

Change made.
