## 9380000 POST-TENSIONING GROUT COMMENTS FROM INTERNAL/INDUSTRY REVIEW

## Karen Byram 414-4353

## karen.byram@dot.state.fl.us

Comments: (5-22-15, Internal)

9380000: Product Evaluation will need to meet with Charles Boyd to verify that products are capable of meeting this specification and determine how the existing products will be reapproved to the new changes. This task has not been completed at this time.

Other comments:

1. This is very confusing to know if grout exists or has been replaced by the term filler. Sometimes it is removed and other times it has not. This needs to be addressed throughout the document for consistency.

Response: The meaning of "filler" is defined in 938-1. Section 938-4 covers grout fillers. Section 938-5 covers flexible fillers.

No change made.

2. From the contents of the specification, the title of the specification should be changed to 'Grouts and Flexible Fillers for Post-tensioning Structures.'

Response: This Section covers fillers used inside PT duct and not in other locations on a PT structure. No change made to the title "DUCT FILLER FOR POST-TENSIONED STRUCTURES".

No change made.

3. Article 938-1 Description needs to include a description of the use of grouts, such as 'Grout materials are used for horizontal, vertical and repair applications as defined in this specification.'

Response: (response by Bergin) I believe the general section is clear to me and find Karen non-persuasive. No change made.

4. The use of 'shall' needs to be changed to 'must' throughout the document, or the document needs to be changed to active voice.

Response: The language in this Section is consistent with the language in other material specs. No change made.

5. In Article 938-2, manufactures must also submit a photograph of packaging showing the product meets the requirement of this specification.

Response: (response from the Specs Office) - Section 6 (6-1.3.1.1 Approved Product List has been modified to include this requirement. No change made to Section 938.

6. In Article 938-2 second paragraph, the term 'application' needs to be expanded to 'application type'. This also applies to section 938-3.1 in the second sentence.

Response: (response by Bergin) I found Karen non- persuasive on the first count and agreed with her on the second. Have included language to address the issue. Change made prior to Industry Review.

7. In Article 938-3, are there any label requirements for the Wax?

Response: (response by Bergin) The wax is required to meet the properties indicated in Table 2 and this has been clarified in the specification.

No change made.

8. In Article 938-3, 'changes to materials', this sentence needs to be moved to section 938-3 under Approved Product List since it affects the approval status.

Response: (response by Bergin) Agree. Change made prior to Industry Review.

9. In 938-3.2 there is no discussion of the informational requirements of the Quality Control Data Sheet or how the Engineer will accept or reject the lot based on this information.

Response: (response by Bergin) Change made to reflect this requirement. Change made prior to Industry Review.

10. In Article 938-4.5, the introduction of a non-sanded grout is referenced. Is this to be considered a new material or a non-sanded version of vertical grout and repair grout?

Response: (response by Bergin) The vertical, horizontal may be non- sanded based on current specification language. The repair materials are always non-sanded. No change made.

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Zuming Xia 817-545-4807 zxia@structuraltec.com

Comments: (submitted directly to the Structures Design Office)

1. 938-4.2.2 Laboratory Test:

On the modified wick induced bleeding test, the testing procedures referred by Florida DOT is the old version from PTI grout specification, the procedures have been changed for the PT industries, first by EN 445 and then adopted by PTI as shown in the attached document. I also attached original copy of EN 445 for your references. The main reason for this changes is to have more representative field harsh condition. I would suggest that Florida DOT can adopt this industry practice as well.

Response: The test will be investigated further for possible future implementation.

No change made at this time.

1. PTI also adopted inclined tube test from EN 445 and it became one of the industry practice now as well, I would suggest that Florida to consider this as well. As a matter of fact, lots of challenges Florida DOT had over last 10 to 15 years were all associated with grout segregation and soft grout and it may be eliminated if inclined tube test was enforced.

Response: This test requires further coordination with grout producers. This test will be investigated for possible future implementation.

No change made at this time.

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