4130000 SEALING CRACKS AND CONCRETE STRUCTURE SURFACES
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comment: (11-27-13) May want to keep the "than" which is struck in second sentence.

> "per square yard of treated area, and adjust the rate as necessary to produce a ~~skid~~*friction* number (~~S~~*F*N) of no less ~~than 25 at 24 hours and 30~~ *FN40R ≥ 35* at 7 days. Coordinate with the Engineer to conduct a preliminary on-site skid test to determine the actual sand application rate prior to the beginning of production application. If friction numbers below those specified are obtained, completely remove all loose sand from the surface and re-apply the polymer at a rate of 150 square feet per gallon and spread additional sand as necessary to achieve the specified skid numbers. Remove the surface material by grinding*, shot blasting,* or other approved method if satisfactory friction values are not achieved. Friction tests will be conducted by the State Materials Office.
>
> **413-3.5 Opening Riding Surfaces to Traffic:** Protect the sand covered area from vehicular traffic until the polymer has fully cured. After curing, power vacuum to remove excess sand from the riding surface, before opening to traffic."

Response: Agree. Change made.

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Stefanie Maxwell

Comment: (12-2-13) 413-3.3.3 should reference Pavement "Markers" not "Marking" because the following paragraph only addresses pavement markers. Also, remove the word "roadway" from the first sentence and replace it with "pavement" to be consistent with the subarticle title "Pavement Markers".

Response: Agree. Change Made.

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Keith A. Waugh
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Comment: (12-12-13)
1. Regarding the requirements for representatives with five years of experience (413-3.1). I'd be more comfortable with reference to a specific number of projects as experience instead of a time frame. There are only so many people to go around and a man has to start somewhere. Years of experience is not necessarily a guarantee of expertise.

Response: Agree. Will change to a minimum of 10 projects where cracks are sealed with methacrylate.
Change made.

2. I also disagree with the representative having to come out every two weeks. Seems like added cost without benefit.

Response: This specialty work justifies the added cost of the more frequent visits.
No change made.

3. In 413-3.6, I don't agree with adjustment to the frequency for cores unless it is considered "Extra Work". My standard comment… we can't bid "may".
I've sent the spec to Robert Forlong at Pilgram Permocoat in Tampa. They are probably the best in Florida, and certainly the one we always go to for epoxies and penetrants.
I'll pass on his comments about the materials changes when I get them.

Response: Agree. The intent is to allow a reduction on the amount of verification cores. We are changing to "The Engineer may reduce….." With this language, Contractors can bid based on a maximum amount of cores.
Change made.

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D3 Maintenance - Structures

Comment: (12-23-13)
413-3.6: Should the "100ft2" in the parenthesis be 1000ft2?

> **413-3.6 ~~Cure~~*Acceptance* Test*s*:** *Verify penetration of the methacrylate into the cracks by extracting a 2 inch diameter core (1 inch deep) for every 1000 ft^2 or less (if application is less than 100 ft^2) of sealed concrete. Frequency of verification may be adjusted by the State Materials Office with the concurrence of the Engineer.*
>
> Test curing on the treated area using a cotton strand or cotton ball. Consider the material fully cured and ready for traffic when polymer does not adhere to the cotton ball when pressed against the treated surface and then pulled away. Obtain approval from the Engineer prior to reopening area to traffic.

Response: Agree. Good catch. Changed to show 1000 ft2.

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D5 Const - Shailesh Patel
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Comment: (1-7-14)
Section 413-3.6: The actual intent is just to identify if we got reasonable penetration. Different concretes are going to allow different penetrations. We estimate that the seal will occur even with a penetration of 0.25 to 0.5 inch. That would be penetration on an old deck where cracks are filled with road debris. New concretes will accept penetration in excess of 1.0 inch depending on the crack width. Therefore, if we core to a depth that will show 1 inch of the crack, we should be able to determine if satisfactory without going too deep in the concrete.

413-3.6 where cores are taken 2 inch diameter, by (change to) 2 inch deep or to depth of reinforcement but do not core cut the steel. I think the core needs to be taken deeper than the expected penetration so reviewer knows it equaled or exceeded expectation.

Response: Depth of core increased to 1.5 inches with a note to protect the reinforcement. We prefer not to get deeper to minimize the removal of good concrete and ensure the excavation is away from the rebar.
Change made.

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