ORIGINATION FORM

THE INFORMATION BELOW IS TO BE PROVIDED BY THE ORIGINATOR (The person who receives or originates the issue and needs to forward the issue for action.)

Specification: **413-3**

Subject: **Sealing Cracks and Concrete Structure Surfaces**

Origination date: 12-1-2008

Originator: Karen Byram
Office/Phone: Specifications & Estimates/ 4353

Problem statement: When Section 6 was modified July 2008, the product requirements for the Qualified Product List (QPL) were no longer defined in section 6.

Proposed solution: QPL requirements must be clearly defined in the Product related Specification.

Information source:

Recommended Usage Note: All jobs.

Estimated fiscal impact, if implemented:

Implementation of these changes, if and when approved, will begin with the January 2010 letting

Florida Department of Transportation

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M E M O R A N D U M

DATE: February 13, 2009

TO: Specification Review Distribution List

FROM: Rudy Powell, Jr., P.E., State Specifications Engineer

SUBJECT: Proposed Specification: 4130302, High Molecular Weight Methacrylate (HMWM) - Materials

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Karen Byram to specify the information required from manufacturers in order to be included on the Qualified Products List, and to eliminate the certification requirement for the material.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or to my attention via e-mail at ST986RP or rudy.powell@dot.state.fl.us. Comments received after January 16, 2009 may not be considered. Your input is encouraged.

RP/dr
Attachment

HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) – MATERIALS.
(REV 2-5-09)

SUBARTICLE 413-3.2 (Page 403) is deleted and the following substituted:

413-3.2 Materials: The methacrylate system must be a three component system consisting of: a) methacrylate monomer, b) cumene hydroperoxide (CHP) initiator, and c) cobalt promoter. Use a HMWM monomer that is approved by the Department and included on the Department's Qualified Products List. Manufacturers seeking evaluation of their products must submit an application conforming to the requirements of Section 6 *along with the following documentation:*

1. Manufacturer's material installation instructions showing the product can be installed in accordance with this section.

2. Independent laboratory test data and results showing the product has been tested in accordance with the requirements of this specification and meets the requirements.

3. Material Safety Data Sheet (MSDS).

413-3.2.1 Properties: Use a methacrylate material that meets the following physical and performance requirements:

Table 2: Physical Properties of Methacrylate Resin	
Viscosity (Brookfield RVT)	14-20 cps at 50 rpm
Density (ASTM D1481)	8.5 - 9.0 lb/gl at 77^{o} F
Flash Point (ASTM D93)	> 200 ^{o}F (Pensky Martens CC)
Odor	Low
Bulk Cure Speed	3 Hours @ 73^{o} F (max.)
Surface Cure	8 Hours @ 73^{o} F (max.)
Gel Time (ASTM 2471)	60 minutes (max.)
Tack Free Time	5 Hours (max.) (at 72 ^{o}F and 50% Relative Humidity
Compressive Strength (AASHTO T106)	6,500 psi (min)
Tensile Strength (ASTM C307)	1,300 psi (min)
Shear Bond Adhesion (ASTM C882)	600 psi (min)
Wax Content	0

413-3.2.2 Shelf Life: The monomer shall have a shelf life of no less than 12 months and shall be no more than 8 months old at the time of application. ~~Provide certification from the manufacturer indicating the batch number and production date of the material prior to transporting the material to the job site.~~ Provide each container *shipped to the job site* with the following information on a manufacturer's label: manufacturer's name, product name, lot or batch number, date of production, and drum serial number. Identify the catalysts by their generic classification and provide the date of manufacture.

413-3.2.3 Sand: Use uniformly graded 6-20 (or similar), clean, bagged, blast sand for spreading over the applied polymer on bridge decks and other riding surfaces. Certify that the sand has a maximum moisture content that does not exceed 0.25% and that the maximum amount of dust or other material that may pass through a No. 200 sieve (–200 content) is not greater than 0.75%.

Store the sand at a location that will preserve the above described conditions and characteristics of the sand until applied.
opening area to traffic.