



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE KOPELOUSOS
SECRETARY

March 16, 2009

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section 413
Proposed Specification: 4130302.D01, High Molecular Weight Methacrylate

Dear Ms. Gourdine:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

These changes were 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 review and transmit your comments, if any, within four weeks. Comments should be sent via Email to ST986RP or rudy.powell@dot.state.fl.us.

If you have any questions relating to this specification change, please call Rudy Powell, State Specifications Engineer at 414-4110.

Sincerely,

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

RP/dr

Attachment

cc: Gregory Jones, Chief Civil Litigation
Florida Transportation Builders' Assoc.
State Construction Engineer

HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) – MATERIALS. (REV 3-5-09)

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. *Use initiator and promoter approved by the monomer manufacturer.* 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 Section and meets the requirements.*

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

Viscosity (Brookfield RVT)	14-20 cps at 50 rpm
Density (ASTM D1481)	8.5 - 9.0 lb/gl at 77° F
Flash Point (ASTM D93)	> 200 °F (Pensky Martens CC)
Odor	Low
Bulk Cure Speed	3 Hours @ 73° F (max.)
Surface Cure	8 Hours @ 73° F (max.)
Gel Time (ASTM 2471)	60 minutes (max.)
Tack Free Time	5 Hours (max.) (at 72 °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.

413-3.2.2.3 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.~~

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