

ORIGNATION 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: S932-1

Subject: Nonmetallic Accessory Materials For Concrete Pavement and Concrete Structures, Joint Materials

Origination date: September 22, 2009

Originator: Karen Byram
Office/Phone: (850) 414-4353

Problem statement: Performance demonstration for product approval is no longer needed and the method is arcane. And the submittal requirements for the Qualified Products List (QPL) are not defined.

Proposed solution: Delete requirement from specification and add QPL requirements.

Information source: Bruce Dietrich

Recommended Usage Note: All jobs

Estimated fiscal impact, if implemented: None

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



Florida Department of Transportation

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M E M O R A N D U M

DATE: October 5, 2009

TO: Specification Review Distribution List

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

SUBJECT: Proposed Specification: 9320102 NONMETALLIC ACCESSORY MATERIALS FOR CONCRETE PAVEMENT AND CONCRETE STRUCTURES

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 delete the field test requirements and clarify and list the information to be submitted with the QPL application for joint sealer. The field test requirements are being deleted because the laboratory testing is sufficient.

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 November 1, 2009 may not be considered. Your input is encouraged.

RP/jf
Attachment

NONMETALLIC ACCESSORY MATERIALS FOR CONCRETE PAVEMENT AND CONCRETE STRUCTURES.

(REV 9-22-09)

SUBARTICLE 932-1.2.2 (Page 878) is deleted and the following substituted:

932-1.2.2 Material: The joint sealant shall be composed of a mixture of materials, typically but not limited to bituminous based, that will melt when heated for application and then solidify to form a resilient and adhesive compound capable of sealing joints in portland cement concrete and/or asphaltic concrete against the infiltration of moisture and foreign materials throughout normal pavement conditions and at ambient temperatures. The manufacturer shall have the option of formulating the material according to their Specifications. However, the requirements delineated in this Specification shall apply regardless of the type of formulation used. The material shall cure sufficiently to not flow from the joint or be picked up by vehicle tires after 3 hours at 77°F. The material shall be capable of a uniform application consistency suitable for filling joints without the inclusion of large air holes or discontinuities and without damage to the material.

Materials for pavement joints shall be tested according to ASTM D-5329. ~~Manufacturers or distributors seeking approval of their material in accordance with this Specification shall demonstrate the performance of their products in accordance with Florida Test Methods FM 5-532.~~

932-1.2.2.1 Physical Requirements of Joint Sealants for Portland Cement Concrete Only:

Parameter	Limits
Pour Point	At least 20°F lower than the safe heating temperature as stated by the manufacturer.
Cone-Penetration, Non-immersed at 77°F, 150g, 5s	Less than or equal to 90 mm
Flow at 40°F, 5 h	Less than or equal to 5.0 mm
Bond, Non-immersed, 0°F for 5 cycles*	No cracking, separation, or opening that at any point is over 1/4 inch deep, in the sealant or between the sealant and the substrate.
*The depth of a crack, separation or opening shall be measured perpendicular to the side of the sealant showing the defect. At least two test samples in a group of three representing a given sample of sealant shall meet this requirement.	

932-1.2.2.2 Physical Requirements of Joint Sealants for Portland Cement Concrete and/or Asphaltic Concrete:

Parameters	Limits
Pour Point	At least 20° lower than the safe heating temperature as stated by the manufacturer.
Cone-Penetration, Non-immersed at 77°F, 150g, 5s	Less than or equal to 90 mm
Flow at 40°F, 5 h	Less than or equal to 3.0 mm
Bond, Non-immersed, -20°F for 3 cycles, 50% extension*	No cracking, separation, or opening that at any point is over 1/4 inch deep, in the sealant or between the sealant and the substrate.

Resilience at 77°F	Recovery greater than or equal to 60%
Asphaltic Concrete Compatibility at 140°F	No failure in adhesion, formation of an oily exudates at the interface between the sealant and the asphaltic concrete, or softening or other deleterious effects on the asphaltic concrete or sealant.
*The depth of a crack, separation or opening shall be measured perpendicular to the side of the sealant showing the defect. At least two test samples in a group of three representing a given sample of sealant shall meet this requirement.	

SUBARTICLE 932-1.2.4 (Page 879) is deleted and the following substituted:

932-1.2.4 Qualified Products List: The joint sealant materials used shall be one of the products listed on the Department’s Qualified Products List (QPL). ~~Manufacturers seeking evaluation of their product shall submit an application in accordance with Section 6.~~ *Manufacturers seeking evaluation of their products shall submit product datasheets, performance test reports from an independent laboratory showing the product meets the requirements of this section, and a QPL application in accordance with Section 6. Information on the QPL application must identify the sealant type.*

SUBARTICLE 932-1.3.4 (Page 882) is deleted and the following substituted:

932-1.3.4 Qualified Products List: The low modulus silicone sealant used shall be one of the products listed on the Department’s Qualified Products List. ~~Manufacturers seeking evaluation of their product shall submit an application in accordance with Section 6.~~ *Manufacturers seeking evaluation of their products shall submit product datasheets, performance test reports from an independent laboratory showing the product meets the requirements of this section, an infrared identification curve (2.5 to 15 μm) and a QPL application in accordance with Section 6. Information on the QPL application must identify the sealant type.*