

932 NONMETALLIC ACCESSORY MATERIALS FOR CONCRETE PAVEMENT AND CONCRETE STRUCTURES.

(REV 9-22-09) (FA 11-20-09) (7-10)

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.

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 |
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| 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 | No failure in adhesion, formation of an oily exudates at the |

| | |
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| Compatibility at 140°F | 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 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 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.