

New Jersey Turnpike Authority

P.O. Box 5042, Woodbridge, NJ 07095



October 11, 2023

Document Change Announcement

2016 Standard Supplementary Specifications

Crack Spanning Membrane

DCA2023SS-13

Subject: Revisions to

Section 302 Hot Mix Asphalt (HMA) Pavements, Subsection 302.05 Methods of Construction

Section 923 Miscellaneous, Subsection 923.24 Crack Spanning Membrane.

Description of Change:

This DCA revises the existing crack spanning membrane specification due to nonavailability of material, and adds corresponding products to the QPL.

Notice to New Jersey Turnpike Authority Staff and Design Consultants

Effective immediately, all contracts currently in the design phase shall incorporate the revisions herein. For advertised contracts awaiting the opening of bids this revision shall be incorporated via addendum. Contact your New Jersey Turnpike Authority Project Manager for instruction.

The revisions may be accessed on the Authority's webpage: <https://www.njta.com/doing-business/professional-services>

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Distribution: Senior Staff Engineering, Law, Maintenance and Operations Depts., UTCA, AGC, All Prequalified Consultant Firms, File

NOTE: All text herein are REVISIONS, as indicated by the tracked changes, to the latest version of the 2016 Standard Supplementary Specifications.

302.05 Methods of Construction

(A) Preparation of Existing Surface

(2) Crack Spanning Membrane Placement

Add the following to the end of this Subparagraph:

The crack spanning membrane shall be installed as per manufacturer's recommendations.

923.24 Crack Spanning Membrane.

~~Delete the second paragraph and replace it with the following:~~

~~Ensure that the material is applied in accordance with manufacturer's instructions.~~

~~Delete this Subsection in its entirety and replace it with the following:~~

Crack Spanning Membrane shall be a high-density asphaltic mastic laminated between layers of nonwoven polypropylene meeting the following properties:

<u>Property*</u>	<u>ASTM</u>	<u>Requirement</u>
<u>Thickness</u>	<u>ASTM D1777</u>	<u>0.135 inch minimum</u>
<u>Width</u>	<u>N/A</u>	<u>20 inches minimum</u>
<u>Weight of Membrane</u>	<u>N/A</u>	<u>0.8 lbs/ft² minimum</u>
<u>Mastic Density</u>	<u>ASTM D70</u>	<u>70.0 lbs/ft³</u>
<u>Cold Flexibility, (2" x 5" Specimen 180 deg Bend on 2 inch Mandrel, 32 deg F)</u>	<u>ASTM D146 (Modified)</u>	<u>No Cracking or Separation</u>
<u>Heat Stability, (2" x 5" Specimen 180 deg Hung Vertically in a Mechanical Convention over 2 hrs., 190 deg F)</u>	<u>N/A</u>	<u>No Dripping or Delamination</u>
<u>Mastic Softening Point</u>	<u>ASTM D36</u>	<u>210 deg F minimum</u>
<u>Percent Elongation</u>	<u>ASTM D412</u>	<u>>10 percent</u>
<u>Tensile Strength</u>	<u>ASTM D412</u>	<u>>1600 psi</u>
<u>Puncture Resistance</u>	<u>ASTM E154</u>	<u>>200 lbs</u>

* - Sampling in accordance with ASTM D146

Ensure that the material is applied in accordance with the manufacturer's instructions.

Crack and joint sealant shall be a hot poured modified asphalt using an elastomer/plastomer blend conforming to Subsection 904.06(A) or an asphalt vulcanized rubber crack sealant conforming to Subsection 904.03.