STATE OF NEW JERSEY
DEPARTMENT OF TRANSPORTATION
TRENTON, NEW JERSEY 08625

METRIC SPECIFICATIONS FOR JOINT SEALANT

N.J. Specification No. EBM-JS-1 Effective Date: July 1, 2001

New Jersey Department of Transportation Specifications for Joint Sealant.

The purpose of these specifications is to describe the minimum acceptable physical and performance properties of joint sealant used to seal a loop detector trench.

GENERAL - I

1-1 The joint sealant shall be suitable for use in filling sawcut made in concrete or bituminous concrete pavement in which electrical wire has been installed. The sealant shall have no detrimental effect to the cross-linked polyethylene or thermoplastic insulation on the cable and bond with minimal shrinkage to either concrete or bituminous concrete roadways. The cured joint sealant material shall not tack in hot weather and shall be suitable for use at temperatures as low as 7 °C.

1-2 Joint sealant designed for use with bituminous concrete pavement may be utilized on either concrete or bituminous type of roadway. Joint sealant designed for use with concrete roadways may only be utilized on that type of pavement.

1-3 The joint sealant shall cure to a tough rubber-like seal that won't embrittle with age. It shall resist weather conditions, abrasions, oils, gasoline, anti-freeze solutions, brake fluids and road salt normally encountered under typical road situations.

1-4 The joint sealant shall be the type specified in the contract documents (or bid documents).

TYPES OF JOINT SEALANT - II

2-1 Sealant, Type I. The joint sealant may be a pre-mixed compound installed under pressure. The joint sealant shall also conform to the following:

Drying time:24-30 hours at 24 °C
Gel time:Immediately
Hardness:65-75 at 25 °C
Tensile Strength:3 447 kilopascals
Pulled at 8 millimeters per second
Elongation:400% min.
Pulled at 8 millimeters per second

2-2 Sealant, Type II. The joint sealant shall be a pourable epoxy sealant material. The epoxy joint sealant shall conform to the following:

Drying time:4-5 hours at 24 °C
Gel time:25-60 minutes at 25 °C
Hardness:35-55 (24 hours at 24 °C)
Tensile Strength:2 068 kilopascals min. (ASTM D 638)
Elongation:11% min.

INSTRUCTIONS AND GUARANTEE - III

3-1 Installation instructions shall be provided with each container of joint sealant and/or with each carton containing any number of containers.

3-2 No changes or substitutions in these requirements will be accepted unless authorized in writing. Inquiries regarding this specification shall be addressed to the Manager, Office of Traffic Signal and Safety Engineering, New Jersey Department of Transportation, 1035 Parkway Avenue, P.O.Box 613, Trenton, NJ 08625.

3-3 A shelf-life expiration date shall appear on all containers.

3-4 The company agrees upon the request of the Manager, Office of Traffic Signal and Safety Engineering to deliver to the Office, a sample of the joint sealant to be supplied in compliance with these specifications for inspection and test before acceptance. After completion of the test, the sample shall be returned.