

QPL 6 TRAFFIC CONTROL DETECTION LOOP SEALANTS

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PROCEDURES

GENERAL

This evaluation procedure outlines the Department's approval process for detector loop sealants used for embedding traffic signal loop wires in bituminous or Portland cement concrete pavement.

SPECIFICATIONS

None

Procedure

A completed Product Evaluation Form, MSDS sheets, if applicable, product data information and sample of the product being tested must be submitted to the Division of Materials and Tests.

The sealant must have the following properties:

One or two components

Become tack-free in one hour or less at 25 degrees C (77 degrees F).

Minimum hardness (Shore A) of 15

No sand is to be used as part of the sealant mixture.

The material shall be environmentally safe.

The manufacturer shall install their product on a test deck provided by the Department.

The cured sealant shall remain flexible without melting and neither crack, become tacky, nor deteriorate over the normal range of pavement temperatures and weather conditions or when exposed to gasoline, hydraulic brake fluid, motor oil, calcium chloride or deicing chemicals.

After six months, a visual inspection of 4-inch cored test samples taken from the bituminous pavement shall be made to ensure that there are no visible air voids in the sealant, no chemical reactions with the pavement (deterioration of the bituminous material) and no loss of bonding to the paving material.

Simulated concrete pavement testing will be done in the Materials and Tests Laboratory. Saw cuts will be made in a concrete beam with loop wire being placed at the bottom of the slot. The sealant will be allowed to cure completely at room temperature. The beam will be cut normal to the saw slot and a visual inspection of the sample made. The same requirements noted above will apply.