

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT 1048
LOOP DETECTOR SEALANT PREQUALIFICATION PROCEDURE**

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1048.01 Description. This supplement describes the field service test procedure by which the Department will maintain a List of Prequalified Loop Detector Sealants (LDS), as required by 632.11. A one year field test is required.

1048.02 Field Testing. Manufacturer/vendor shall provide the following:

- A. A minimum of two one-gallon (4-liter) packages shall be required for the one component loop detector sealant; and for the two component loop detector sealant a minimum of two one-gallon (4-liter) packages consisting of an appropriate quantity for each component shall be required.
- B. The material safety data sheet or an OSHA Form 20 along with the manufacturer's technical data sheet and two mixing pails large enough to permit full mixing of the loop detector sealant shall also be provided with the test loop detector sealant.
- C. The personnel and equipment to cut a pavement slot in accordance with Standard Construction Drawing TC 82.10.
- D. Personnel to install the material per the manufacturer's instructions.

1048.03 Evaluation of Physical Characteristics. Upon receipt of the material samples, the Laboratory will analyze the material for future comparative analysis.

1048.04 Loop Detector Sealant Installation. This will be done at a location as determined by the Department. Each slot will cover the full width of the traveled lane

and be parallel to the stop line. Location of the test slots will be made to avoid existing operating loop detectors.

The loop detector sealant shall be self-leveling yet not be so thin that it runs out of unlevel slots. As the sealant cures it will be checked for emerging bubbles, separation from the pavement, shrinkage, and other deficiencies. The cured sealant shall be impermeable, have an elastomeric character, and provide an adhesive bond that is compatible with asphaltic and portland cement concretes.

The lane shall not be open to traffic until the loop detector sealant is safe to cross without causing damage to the vehicle or the sealant.

1048.05 Evaluation of Field Performance. The Department shall evaluate the test loop detector sealant as follows:

- A. Evaluation ratings shall be in accordance with Table 1.
- B. The slots will be evaluated two to five days after installation to see whether all loop detector sealant are completely set or exhibit any deficiencies.
- C. After the initial evaluation the test loop detector sealant will be evaluated for deficiencies every three months for one year.
- D. Any evaluation rating less than 3 will constitute a failure of the loop detector sealant field performance.

1048.06 List of Prequalified Materials. Loop detector sealants which are included in the test and found to be acceptable according to the requirements of this supplement will be included on a List of Prequalified Materials maintained by the Department. If an approved sealant being supplied exhibits unfavorable characteristics after routine use that were not experienced during the original Laboratory or field test, it may be removed from the prequalified list.

1048.07 Removal of Materials from Prequalified List. Materials may be removed for the following:

- A. Failure to supply the material as tested by the laboratory.
- B. Failure to perform for a minimum of 10 years.

1048.08 Previously Tested Materials. Previously tested materials which failed will not be retested unless the manufacturer can demonstrate that the new material is significantly different by means of material testing. The material shall have a new name or number.

TABLE 1

RATING	CONDITION
5	No notable deficiencies
4	Slight oxidation or discoloration. Hairline cracks or crazing. Small amounts of stones embedded. Small air bubbles in surface. Little puddling in low spots. Slight runout in high places. Slight difficulty in mixing. Slight difficulty in application. Flexibility, slightly too hard or too soft. Very little deterioration.
3	Large irregularities (wrinkling, etc.). Large air bubbles. Moderate amount of stones embedded. Less than 1/32 inch (1 mm) cracking. Slight compression set or web sticking. Slight to moderate puddling in low spots. Slight to moderate runout in high places. Slight to moderate difficulty in mixing and application. Slight to moderately too hard or too soft. Moderate deterioration.
2	Cracking 1/32 to 1/16 inch (1 mm to 2 mm) through sealer. Small amount of punctured bubbles and folds in sealer. Moderate to heavy puddling in low spots. Moderate to heavy runout in high spots. Moderate to severe difficulty to mix. Moderate to severe difficulty to apply. Moderately hard or moderately soft. Noticeable deterioration.
1	Greater than 1/16 inch (2 mm) cracking extending all way through the sealer. Extensive amount of punctured bubbles. Severe puddling or runout of slots. Severe difficulty in mixing and application. Very hard or very soft. Severe deterioration.
0	Total failure.