QUALIFIED PRODUCT POLICY FOR ADHESIVES FOR RAISED PAVEMENT MARKERS
QUALIFIED PRODUCT POLICY 42

Only materials appearing on the Department's Qualified Product listing (QPL) 42 titled, "Adhesives for Raised Pavement Markers" as of the project's bid date shall be used for that project. Pre-bid qualification testing is required before qualified by the SCDOT. All suppliers that want to be included on the QPL must submit samples to the AASHTO National Transportation Product Evaluation Program (NTPEP) "Evaluation of Pavement Markers and Adhesives" (RPM/SRPM) program prior to achieving fully qualified status for work on South Carolina DOT projects. For suppliers whose material is in the process of being tested by NTPEP, provisional status may be obtained as outlined below.

NTPEP testing consists of placing pavement markers on a predetermined roadway using the adhesives submitted by suppliers. The test sections are evaluated every 6 months over a 2 year period for the number of markers that are missing and the number of markers that have slid out of position. The number of markers that have slid and the number of missing pavement markers recorded from roadway endurance tests is used to determine whether an adhesive meets SCDOT criteria for acceptance. The maximum allowable percent slid and missing is 10%. Once qualified, the material will remain on the qualified list for a period of eight (8) years, assuming continuing satisfactory product performance. At the end of this period, the material must be resubmitted to NTPEP for testing. At that time, the manufacturer shall provide the date that the material will be or has been placed on the NTPEP test deck. If at anytime during the eight (8) year period the formulation of the material is changed, new NTPEP testing will be required and the material will revert to provisional status.

Requirements for adhesives are given in the most current SCDOT Supplemental Specifications for Pavement Markers. Information concerning submission of test samples to NTPEP is available on their web site at data.ntpep.org.

Requirements for thermoplastic adhesives are given below:
Use an adhesive made of thermoplastic material and a homogeneously mixed filler that meets the following physical requirements.

- Adhesive Properties

	Minimum	Maximum	Test Method
Binder Content	25%	35%	ASTM D 4797
Filler Content	65%	75%	ASTM D 4797
Softening Point	194°F (90°C)	212°F (100°C)	AASHTO T 53
Specific Gravity	1.7	2.0	ASTM D 792
Shore Hardness 115°F (46°C)	0	20	ASTM D 2240
Flash Point	500°F (260°C)	-	ASTM D 92

- Certification: Submit a certification from the manufacturer that includes the physical properties of the adhesives and that the material conforms to this specification.

- Participation in the NTPEP evaluation for standard (non-plowable), snow plowable, temporary and chip seal raised pavement markers, and adhesives.
    - Pavement Markers Adhesives shall meet the requirements and testing criteria for the NTPEP evaluation of adhesives.
    - Submit to the Office of Materials and Research (OMR) a letter of certification from the adhesive manufacturer indicating testing was conducted by NTPEP.

- Independent Test Results: Provide independent test results from an AASHTO accredited lab for the thermoplastic adhesive material properties listed above.

- Packaging and Labeling
    - Pack the adhesive in a self-releasing cardboard container or meltable bag.
    - Put the manufacturer, quantity, and batch number on the label.
    - Print "Thermoplastic Adhesive for Pavement Markers" on the label.

Provisional approval status for adhesives for raised pavement markers may be obtained as outlined below:

- Provide two (2) state DOT references other than SC that have used the product. Provide a contact person and phone number.

- Provide the date that the material will be or has been placed on the NTPEP test deck. If the material is not currently being evaluated by NTPEP, a copy of the Manufacturer's application to NTPEP requesting inclusion in the next available testing phase must be included.

- Provisional status is maintained as long as the following conditions are met:
    - Original material is being evaluated by NTPEP.
    - If the material is not currently under NTPEP evaluation, the material must be placed on the test deck as soon as NTPEP's schedule permits. Documentation shall be provided by the Manufacturer showing that a request to be included in the next round of evaluations been submitted to NTPEP. When the Manufacturer has submitted samples according to NTPEP requirements, further documentation of this action shall be submitted.
    - The formulation of the material on provisional status does not change.
- The SCDOT deems that the material is providing satisfactory performance.

It is the Manufacturer's responsibility to commence NTPEP evaluation at the earliest available date. If the Manufacturer fails to obtain NTPEP testing status in a timely manner, the material will be ineligible for any form of approval until NTPEP evaluation is satisfactorily completed.

Once a material has satisfactorily completed two years of NTPEP testing, the material will be placed on QPL 42 as a qualified product. If a material fails to provide the standards of performance outlined above, that material will be removed from the QPL. No further provisional approval will be given to the Manufacturer of the material, although full approval may be given upon successful performance in subsequent NTPEP testing.

A product shall remain on QPL 42 given that they provide an annual notification of any updates to the company and products by December 31 of the calendar year. This shall be provided in the form of a letter to the SCDOT contact listed below stating that company name, and contact person has not changed, or update that information. The letter shall also state the product name and manufacturing process has not changed. Any changes to product manufacturing would require reevaluation.

Withdrawal of Qualification: the Department reserves the right to remove any material from QPL 42 if, in the opinion of the Materials and Research Engineer or by recommendation of the Resident Construction Engineer, the product is not performing satisfactorily under field conditions.

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