



Minnesota Department of Transportation
Approved/Qualified Epoxy Program
October 22, 2019

The Minnesota Department of Transportation (MnDOT) will only accept epoxies from the MnDOT Approved/Qualified Products List. This applies to all epoxy sold to contractors for use on MnDOT projects.

For an epoxy to be Approved/Qualified by MnDOT, a Manufacturer must demonstrate an ability to manufacture epoxies meeting the requirements of ASTM C881 for the type, grade, and class of material needed to meet the conditions at the time of placement.

The contractor or other purchaser and subsequently the inspector shall verify that the epoxy is adequate for the use intended. Details of surface preparation, mode of application, and grades of dry and clean silica sand used in conjunction with them should be obtained by the project engineer from the Concrete Office prior to starting the epoxy operation.

Epoxies Categories:

Epoxy Bonding Agents

- 1) Used to bond fresh concrete to old concrete

Epoxy crack sealers

- 1) Used for crack sealing in non-load bearing applications
- 2) Used for crack sealing in load bearing applications

Epoxy Penetrant Sealers

- 1) Used to seal concrete surfaces which have received moderate rain damage or have a weak surface.

Epoxy Patching Compounds

- 1) Used to repair concrete surfaces which have received heavy rain damage and for filling low spots.
- 2) Moisture insensitive epoxies should be used when moisture is present

Protective epoxy coatings for bridge seats

- 1) Color shall be light gray, clear or neutral. Moisture compatible.

The Manufacturer must comply with the following:

A. Testing

The supplier must provide test results from an independent laboratory verifying the epoxy meets ASTM C881.

B. Reference Samples

Manufacturer shall submit a small sample for approval to the MnDOT Materials Lab along with an infrared spectrum (IR) of the epoxy. Also include a Materials Safety Data Sheet (MSDS) and a Technical Data Information Sheet.

C. Field Acceptance

If the above criteria are met successfully, the epoxy will be given tentative approval, contingent upon satisfactory performance in the field.

D. Environmental Acceptance

The product will be evaluated by the MnDOT Office of Environmental Services using the Hazard Evaluation Process (HEP) to determine any potential impacts that could result from use of the product. See the attached HEP for information that must be submitted before the product will be evaluated.

E. Non-Compliance

If future samples of these materials do not meet MnDOT specifications, the product may be removed from the Approved/Qualified Products List.

Please also note that it is the manufacturer's responsibility to immediately notify MnDOT if any product is changed or modified, or if the product is no longer being produced.

The list of Approved/Qualified products may be found on the MnDOT Concrete website at <http://www.dot.state.mn.us/products/index.html>

Reference materials and certification shall be sent to:

Minnesota DOT
Attention: MnDOT Concrete Engineering Unit
1400 Gervais Ave.
Maplewood MN 55109

MnDOT Office of Environmental Services
Hazardous Evaluation Process

The MnDOT Office of Environmental Stewardship developed the Hazard Evaluation Process (HEP) as a tool to determine potential environmental impacts that could result from use of a product, and consequently, if the product is acceptable for use on MnDOT infrastructure. The following information must be submitted by the vendor in order for MnDOT to complete the HEP:

1. Vendor information
 - a. Name of Company
 - b. Address
 - c. Technical Contact Name and Telephone Number
 - d. Application Date
 - e. Product Trade Name
 - f. Product Chemical Name
 - g. Product Data Sheet

2. Provide Material Safety Data Sheets for all chemicals in the product material. Chemical component identifications must include Chemical Abstracts Service (CAS) registry numbers.

3. Metals analysis to include the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) plus copper and zinc. Metals should be analyzed by EPA method 6010 or 6020 on the product as purchased. Total metal concentrations should be reported as mg/L in the final product. The lab report should include Quality Assurance sample results of laboratory blanks, duplicates, and spike recoveries.

Questions regarding the MnDOT Hazard Evaluation Process can be sent to:
laura.lyle@state.mn.us or call 651-366-3608.