

Mn/DOT Anti-Graffiti Coating Approval Procedure

1. Send a personalized submittal package to:

Jim McGraw
Mn/DOT Office of Materials
Chemical Lab Director
1400 Gervais Ave
Maplewood, MN 55109

Telephone: 651-366-5548
james.mcgraw@dot.state.mn.us

Submittal package should include:

- Completed New Products Application Form (Attached)
 - Manufacturer contact name, address, phone number and email address
 - Product Data Sheets on all components including mixing and curing directions
 - Material Safety Data Sheets
 - Performance History References in a cold, heavy salt spray environment
 - Gallon of each component for Infrared Spectrum and Graffiti Resistance Testing
 - Certification that products meet Minnesota Statute 115A.9651 requirements for heavy metals and VOC requirements
 - Any independent lab testing available on the submitted coating system
 - Completed Mn/DOT Office of Environmental Services Hazardous Evaluation Process Documentation (attached)
1. The Approval Process consists of laboratory testing and a field evaluation. The lab testing follows ASTM D6578- Standard Practice for Determination of Graffiti Resistance. The following procedures in ASTM 6578 shall be used:
 - Manual Solvent Rub Graffiti Removal Procedure- Section 9 (Acetone replacement for MEK)
 - Lab-Accelerated Weathering Exposure-Method A- Section 12.1. Exposure cycles shall be 8 hour UV at 60°C and 4 hours Condensation at 40°C.
 - Re-Cleaning-Section 10
 - Cleaning of Solvent-Based Permanent marker, Solvent-Based spray paint and water-based ink markers will be evaluated

If graffiti is removed in a satisfactory manner and no visible damage to coating has occurred, that coating will be considered for approval.

In addition to ASTM D6578 testing, panels will be coated for evaluation for outdoor and accelerated weathering. Coating compatibility and adhesion with Mn/DOT approved

coating on concrete shall be evaluated. Change in gloss and color change to underlying stain will be monitored.

2. Time line for submittal: Submittals are accepted at any time. Laboratory testing should take about 5 months and outdoor weathered panels shall be exposed over 1 winter on the test deck.
3. Deposition Statements and Comments: Upon successful performance in both lab and field evaluations, the submitted noise wall coating will be placed on the appropriate Mn/DOT's Approved Products List. Any un-approved change to system formulation will result in removal from the Approved Products List.

New Product ID # _____
(For Mn/DOT Use Only)

Revised 7/28/2005

State of Minnesota
Department of Transportation
New Product Preliminary Information Form

INSTRUCTIONS: Answer ALL questions. Where a question is not applicable enter "N/A".
Attach additional sheet(s) as required with reference to item number.

Date: _____

1. Trade Name _____

Manufacturer _____

Phone No. (____) _____

Address _____ City _____ State _____ Zip _____

Patent pending Yes ____ No ____ Patent No. _____

2. Local Distributor _____ Phone No. (____) _____

Address _____ City _____ State _____ Zip _____

3. Recommended _____ Primary
Use: _____

4. Describe product, material equipment or process:

5. Describe any limitations or use restrictions:
- _____
- _____
6. Material composition (attach laboratory test results, storage requirement, shelf life, Material Safety Data Sheet and disposal procedure):
- _____
- _____
7. Outstanding feature or advantage claimed:
- _____
- _____
- _____
8. Date introduced on market _____. Alternate for what existing product?
- _____
9. a. Total Estimated Cost Per Unit Material (including delivery) _____
- b. Total Estimated Cost Per Unit Furnished and Installed _____
10. Does product meet requirements of any of the following specifications?
(Give specific number.)
- AASHTO _____ ASTM _____ Fed. Spec. _____ Mn/DOT _____
- Others (state and attach specifications) _____
11. Indicate whether this product has been evaluated by a national or regional product evaluation program? (Attach any results.)
- _____ HITEC _____ NTPEP _____ Others (specify)
12. Cite use by other agencies and persons to be contacted concerning experience with use, including how many years used, and whether use has been experimental or routine (list names, titles, mailing address and phones):

13. Note here and attach any test results, reports, etc., from the organizations above:

14. Is a documented quality control process available for this product?

15. Who has been contacted within Mn/DOT about this product? _____

Has this person been sent a copy of this form? _____

16. Additional comments: _____

Name and Title of person completing this form:

Address, State, Zip:

Date: _____ Phone: () _____

Email Address: _____

_____ Manufacturer _____ Representative

Mn/DOT Office of Environmental Services
Hazardous Evaluation Process

The Mn/DOT Office of Environmental Services 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 Mn/DOT infrastructure. The following information must be submitted by the vendor in order for Mn/DOT 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/waste material.
3. Regulatory Approvals & Status:
 - a. Licenses
 - b. Approval
 - c. Permits
 - d. TSCA Listing
4. Chemical Status:
 - a. Provide Individual Chemical & Physical Properties (OECD¹ Methods 102, 103, 104, 105, 111, 112, 113, 117, 121);
 - b. Identify chemicals with molecular weights greater than 1000 Daltons (OECD Methods 118, 120 or equivalent;
 - c. Certification that final product would not be considered a hazardous waste under Minnesota Rules Chapter 7045 if disposed of unused;
 - d. Names and Chemical Abstract Numbers (CAS numbers) of the reportable substances in the product (40 CFR 302);

The following product-specific information must be submitted if known. If information for a representative test is unknown it must be stated as such. EPA SW-846 test method information can be found at: <http://www.epa.gov/epaoswer/hazwaste/test/main.htm>. OECD product test method information can be found at: <http://www.oecd.org/home/> or http://www.oecd.org/document/23/0,2340,en_2649_34379_1948503_1_1_1_1,00.html. U.S. EPA Office of Prevention, Pesticides and Toxic Substances Harmonized Test Guidelines can be found at: <http://www.epa.gov/opptsfrs/home/guidelin.htm>.

- a. Leach test results (EPA Method 1311 and OECD Method 312 with subsequent analysis for test substance or equivalent method);
- b. Biodegradation (OECD Method 301C, 301D, 302C, 304A, 307, 309 or equivalent method);
- c. Ecotoxicity to include three trophic levels (OECD Method 201, 207, 208, 210, 211 or equivalent method, OPPTS Method 850.5400, 850.1300, 850.6200, 850.4100, 850.4150, 850.1400 or equivalent method);
- d. Other available test data that provide individual chemical fate, exposure and pathway information.

¹ Organization for Economic Co-operation and Development methodology for product testing is preferred but equivalent methods may be acceptable.

Questions regarding the Mn/DOT Hazard Evaluation Process can be sent to:

Robert.Edstrom@dot.state.mn.us