

# NTPEP



NATIONAL TRANSPORTATION  
PRODUCT EVALUATION PROGRAM

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# What is NTPEP

- Established within AASHTO in 1994, as a technical service program, who reports to the Standing Committee on Highways (SCOH)
- Combines the professional and physical resources of the AASHTO member departments in order to evaluate materials, products and devices of common interest for use in highway and bridge construction
- **Primary Goal- provide cost-effective evaluations and audits for the state Departments of Transportation (DOT)**

# NTPEP's Current Status

- 25 Technical Committees
  - 20 different products are evaluated
  - 11 different products are audited and evaluated
- To date, 400 products have been submitted in DataMine since Jan. 1, 2016
- 150 Audits are scheduled to be completed in 2016
- AASHTO has received the annual NTPEP contribution for FY16 from 45 states

# How NTPEP Works

- Products are evaluated according to nationally recognized test methods (e.g. AASHTO, ASTM) specified by the members of that Technical Committee in the Work Plan
- When standards do not exist, the NTPEP Technical Committee convenes and establishes test protocols through ballot consensus process
- Testing Service Fees assessed to industry cover actual costs for field and lab testing of products
- Contributions from AASHTO members and apportionment of industry fees sustain NTPEP

# New Technical Committees/Task Forces

- New Technical Committees
  - Epoxy and Resin Based Adhesive Systems
  - Guardrail/Guiderail
  - Elastomeric Bridge Bearing Pads
  - Warm Mix Asphalt Technologies
- NTPEP Product Implementation Task Force
  - Annual Survey for new product interest
  - Currently exploring:
    - Truncated Domes/Detectable Warnings – Work Plan to
    - Portland Cement and Pozzolans – elementary stages/need “champion”
- AASHTO Committee NTPEP Liaison

# NTPEP's DataMine Website

- The “nucleus” of NTPEP
- Data Repository for evaluation results
- Accessible to all individuals with a valid state transportation agency email

# DataMine Screenshots

After registering and logging in:

## 1. Select a product:

NTPEP DataMine

Home

Preferences

Help

Log Out

NTPEP DataMine 2.0 is the online repository of data and audit reports for all NTPEP services. This database provides the tools for performing queries that will assist you in analyzing and reporting on current and past NTPEP evaluations. The application allows NTPEP Testing Facilities and Auditors to enter real time data online. Also our industry partners and the NTPEP administration may review product information and preliminary reports online for timely reporting of all evaluations.

The Technical Committees that are responsible for developing the work plans and overseeing the evaluations and audits are divided into the three categories below: Traffic Safety, Construction and Maintenance. The product listing within the categories indicates the products or processes that are evaluated through product testing or manufacturing audits.

**To view data** that has been released through the program public review, simply click on the product listing below. After clicking on the product listing, click "Data" located in the left hand column for the page.

**To submit a product** you must register and login to do so.

Some data that has been released is restricted to view by State Transportation Agency representatives. **To view restricted data** you must register and login to do so. Please register for all Technical Committees you are interested in viewing test data and audit results for. Your registration will require approval by an AASHTO administrator. Please contact NTPEP [ntpep@transportation.org](mailto:ntpep@transportation.org) if you require this approval.

Traffic Safety	Construction	Maintenance
Pavement Marking	Asphalt Release Agent	PCC Joint Sealants and HMA Crack Sealers
PCMS/Flashing Arrow Panels	Concrete Admixtures	Rapid Set Concrete Patch Materials
Raised Pavement Markers (Plowable or Non-Plowable)	Concrete Curing Compounds	Structural Steel Coatings
Roll Up Signing Materials	Erosion Control Products	Concrete Coatings
Sign Sheeting Material	Geosynthetic Reinforcement (REGEO)	
Temporary Traffic Control Devices	Geotextiles and Geosynthetics	
	HDPE Plastic Pipe	
	Reinforcing Steel (REBAR and WWR)	
	PVC Pipe	
	Polypropylene Pipe	
	Epoxy and Resin Based Adhesive Bonding Systems (ePEF Only)	
	Warm Mix Asphalt Technologies (ePEF Only)	
	Elastomeric Bridge Bearing Pads (ePEF Only)	
	Guardrail/Guiderrail (ePEF Only)	

## 2. Select criteria and search. "Any" will bring all products submitted up

NTPEP DataMine

Home

Login

Register

Help

CADD

Overview

Search

Data

Search

Search can be performed by providing desired criteria for product or test attributes.

Search Saved Search

Make Desired Selections to View Required Data

Submittal Year: Any

Manufacturer: Any

Product Name:

Product Specific Criteria

Test Name: Select

Search

Searched Results

NTPEP Number	Product Name	Submittal Year
<a href="#">CADD-2016-01-008</a>	Sikament AFM	2016
<a href="#">CADD-2016-01-007</a>	Sikament AFM	2016
<a href="#">CADD-2016-01-006</a>	Plastocrete 100	2016
<a href="#">CADD-2016-01-001</a>	Sika AEA-14	2016
<a href="#">CADD-2015-01-123</a>	Superset NC	2015
<a href="#">CADD-2015-01-122</a>	MasterSet DELVO ESC	2015
<a href="#">CADD-2015-01-121</a>	MasterLife 300D	2015
<a href="#">CADD-2015-01-120</a>	MasterCell 25	2015
<a href="#">CADD-2015-01-118</a>	Plastol 341S (Type F)	2015
<a href="#">CADD-2015-01-117</a>	Plastol 341S (Type A)	2015
<a href="#">CADD-2015-01-116</a>	Eucon Stasis	2015
<a href="#">CADD-2015-01-113</a>	Eucon LW	2015

Export Results

# DataMine- CADD Module

NTPEP DataMine

[Home](#)

[Preferences](#)

[Help](#)

[Log Out](#)

CADD

[Overview](#)

[Search](#)

[Data](#)

Test Management

This section allows users to add, edit and delete data from CADD test.

System Information

Manufacturer Name:

Sika Corporation

Submittal Year:

2016

System Name:

Sika

NTPEP Number:

CADD

Compare manufacturer values to evaluation results

Manufacturer reported values

Testing facility input

Summary

Test Data

Test Attribute	Min	Max	Rep 1	Rep 2	Rep 3	Avg.	Precision & Bias
pH	***	***					
Specific Gravity @ 25 C	***	***					
Weight of Bottle, Sand and Cap	***	***					
Weight with Admixture	***	***					
Weight After Drying	***	***					
<b>Solids</b>							
M-194	***	***					

Reports

IR Scan	Initial (28 days)	Intermediate (6 months)	Final (1 year)
<div>Upload Document</div>		<div>Upload Document</div>	<div>Upload Document</div>

Product Documents

Attached Documents

View attached documents by manufacturer/supplier:

Document Type	Document
***	***
***	***
***	***
***	***

\*\*\* indicates that data is available, however it is not yet released by Manufacturer for viewing.

Back

This specific example is still undergoing testing

Once reviewed and approved by lead state and manufacturer – results become available to all registered state users

Manufacturer may choose to “withdraw” product  
States would still be able to see results



# www.ntpep.org

The screenshot shows the NTPEP website interface. The header includes the NTPEP logo and the text 'National Transportation Product Evaluation Program'. A navigation menu on the left lists: Home, Membership, Technical Committees, Documents, NTPEP DataMine, States Only, and APEL. The 'States Only' link is highlighted with a red box and an arrow pointing to a text box. Another red box highlights the 'Technical Committees' link, with an arrow pointing to a list of accessible resources. The main content area features a section titled 'State DOT Usage of NTPEP - 2013 Survey Results - Updated November 2015', which includes a map of the United States and a description of the data. To the right, there is a 'Submit a Product' button, an 'Announcements' section, and a 'What is NTPEP?' link. At the bottom right, a 'NTPEP Staff Contacts' section lists four staff members with their titles, phone numbers, and email addresses.

Allows you to access:

- 1.) Current Work Plan for each product
- 2.) Data for products submitted prior to 2011
- 3.) Meeting Minutes
- 4.) Pre-Audit and Audit Worksheets

Technical Committees

States Only

AASHTO Member users can view the unique identification codes for each compliant manufacturer in a PDF file by clicking here. The Concrete Coatings Evaluation Reports are also found here.

State DOT Usage of NTPEP - 2013 Survey Results - Updated November 2015


Click on a state to see the product types for which that state uses NTPEP data (but not necessarily requires it). Contact information is provided below the map.

NTPEP Staff Contacts

- Kathryn Malusky  
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[kmalusky@aathto.org](mailto:kmalusky@aathto.org)
- Vince Glick  
Technology Specialist  
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Implementation Specialist  
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- Keith Platte  
Associate Program Director,  
Project Delivery

- Home
- Membership
- Technical Committees
- Documents
- NTPEP DataMine
- States Only

AASHTO > NTPEP > Technical Committees



Geosynthetic Reinforcement

### Technical Committees

Note: Task Forces do not have web pages until a work plan is completed and the Task Force becomes a Technical Committee.

[List of Technical Committee Liaisons](#) - updated 11/09/2015

#### Traffic Safety Evaluations

- Pavement Marking Materials (PMM)
- Portable Changeable Message Signs & Flashing Arrow Panels (PCMS/FAP)
- Raised Pavement Markers/Snowplowable Raised Pavement Markers (RPM/SRPM)
- Sign Sheeting Materials/Roll Up Signs (SSM/RUP)
- Temporary Traffic Control Devices (TTCD)

#### Construction Evaluations

- Asphalt Release Agents (ARA)
- Concrete Admixtures (CADD)
- Concrete Curing Compounds (CCC)
- Corrugated Metal Pipe (CMP)
- Epoxy and Resin Based Adhesive Bonding Systems (ERB)
- Portland Cement Concrete Joint Sealants (JS)
- Warm Mix Asphalt Technologies (WMA)

#### Audit Programs

- Erosion Control Products (ECP-SRD)
- Elastomeric Bridge Bearing Pads (EBB)
- Geosynthetics (GTX & REGEO)
- Guardrail/Guides (GRL)
- High Density Polyethylene Plastic Pipe (HDPE PIPE)
- Polypropylene Pipe (PPP)
- Polyvinyl Chloride Drainage Pipe (PVC)
- Reinforcing Steel/Welded Wire Reinforcement (REBAR/WWR)

List of AASHTO NTPEP staff member assigned to each TC – contact them for questions!

Who to contact for questions!

- Home
- Membership
- Technical Committees
- Documents
- NTPEP DataMine
- States Only
- APEL

### Concrete Admixtures

AASHTO > NTPEP > Concrete Admixtures

#### Concrete Admixtures (CADD)

Concrete admixtures are used to improve the behavior of concrete under various conditions. Chemical admixtures reduce the cost of construction, modify properties of hardened concrete, ensure quality of concrete during mixing, transporting, placing, and/or curing, and overcome certain emergencies during concrete operations.

#### Technical Committee Members

This roster is as up-to-date as AASHTO's official membership database. The columns are sortable by clicking on the column title.

Committee Name: NTPEP-Technical Committee on Concrete Admixtures

Name	Email Address	Agency Name	Designation	Member Type
Lamberson, Julie	julie.lamberson@modot.mo.gov	Missouri Department of Transportation	Chair	Voting
Iverson, David	david.iverson@state.mn.us	Minnesota Department of Transportation	Vice Chair	Voting
Wong, Maribel	mwong@aaashto.org	American Association of State Highway and Transportation Officials	Liaison	None

### Concrete Admixtures

- Meeting Minutes
- Documents
- Reports
- DataMine
- Industry Resources
- Testing Service Fee

Restore to Default Order

- Home
- Membership
- Technical Committees
- Documents
- NTPEP DataMine
- States Only
- APEL

### Documents

AASHTO > NTPEP > Documents

#### Documents

##### Work Plan

NTPEP tests products according to a Project Work Plan, which describes the laboratory and/or field test protocols used to conduct the evaluation. The Project Work Plan is a consensus-based document, and includes peer review and input from industry experts. Each Project Work Plan is adopted after receiving at least two-thirds affirmative support from 52 AASHTO member states. The Project Work Plan is the basis for host states to conduct their testing and evaluation. When implemented by state DOTs, their own state standard specifications may supersede the NTPEP Project Work Plan. Industry is advised to be aware of state-level requirements, which may supersede basic NTPEP testing.

[Project Work Plan for Laboratory Evaluation of Chemical Admixtures for Concrete](#)

### Concrete Admixtures

- Meeting Minutes
- Documents
- Reports
- DataMine
- Industry Resources
- Testing S

Work Plan that outlines testing





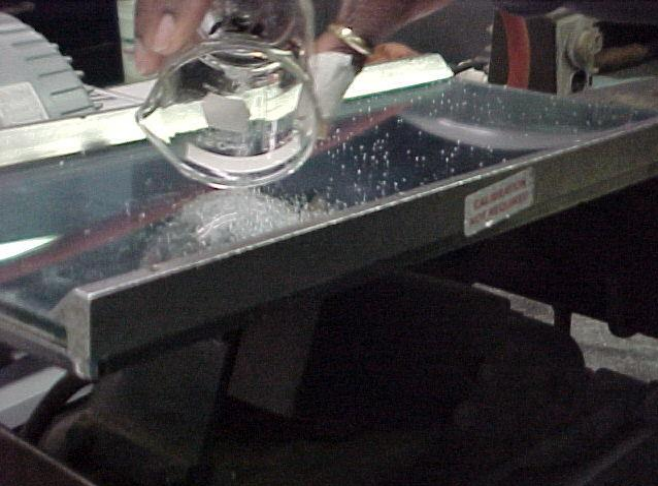
# Raised Pavement Markers (RPM) Snow Plowable Raised Pavement Marker (SPRPM)



- NTPEP evaluates the performance of manufacturers' RPMs and SPRPMs on both asphalt pavement and concrete pavement on a busy interstate.
- Adhesives that hold the RPMs in place may also be evaluated.
- The testing includes field evaluation and laboratory testing. Installation and testing protocols are described in the "Project Work Plan." All sampling and testing requirements conform to the latest version of ASTM Standard Specifications (D4280 and D4383).

NTPEP Number	Install Date	Manufacturer	Product Name	Status	Description
RPM-2015-01-004	October 2015	Trinity Highway Products, LLC.	Guide Lite	Field Test	Lightweight snow plowable raised pavement marker
RPM-2015-01-003	October 2015	Trinity Highway Products, LLC.	Guide Lite	Field Test	Lightweight snow plowable raised pavement marker
RPM-2015-01-002	October 2015	APEX	APEX MODEL 866AR 2 WAY RED/CLEAR	WITHDRAWN	Raised Pavement Marker
RPM-2015-01-001	October 2015	APEX	APEX MODEL 866AR 2 WAY AMBER	WITHDRAWN	Raised Pavement Marker
RPM-2014-01-003	October 2014	Ray-O-Lite	5004H SNOW LENS	Field Test	Snow plowable marker
RPM-2014-01-002	October 2014	Ray-O-Lite	MATILDA 5003H ARC	WITHDRAWN	Raised Pavement Marker
RPM-2014-01-001	October 2014	Ray-O-Lite	MATILDA 5103H ARC	WITHDRAWN	Raised Pavement Marker





# Pavement Marking Materials



# Pavement Marking Types

## Paints

Polyester/Epoxies

MMA/Polyureas

Tapes

Thermoplastics (hot extrude  
and preform)

Durable Tapes

Temporary (removable) Tapes

Preformed (cold)

Thermoplastic

Hot extrude Thermoplastic

## Sprayables

- Paint
- Epoxies
- Polyesters
- MMA/Polyurea

# Field Testing

- Provides performance data + 3 yrs.
- Allows comparison of all types
- Test conducted under uniform conditions
- Controlled and monitored by MTD



# Laboratory program

- Validates and identifies field samples
- Provides a 'fingerprint' for acceptance
- Tested to national standards

# Results and Use

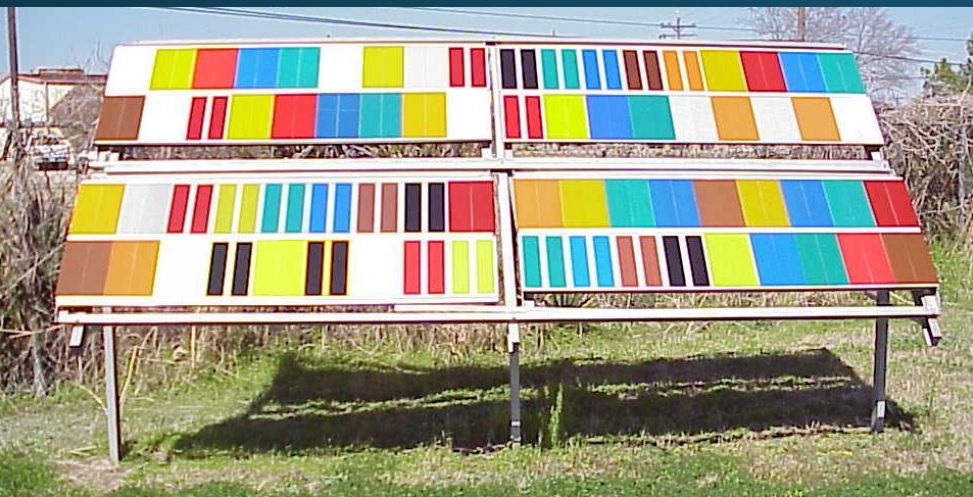
- Report provided by AASHTO for testing and approval purposes for all agencies
- Dept. uses data for materials approval
- Showcase for new technology
- Research tool – operation/materials questions

# Measurement of Performance Properties

- Retro-reflectivity (30 meter geometry)
- Durability (subjective)
- Color (Day and Night-time)
- Wet Night Retro-reflectivity



# NTPEP Sign Sheeting Testing and Data Utilization



# Virginia DOT

## Lead State for Sign Sheeting Materials

- Sheeting manufacturers submit products for testing.
- VADOT works with sheeting manufacturer's in VDOT sign shop to fabricate sheeting samples.
- VDOT distributes samples to AZ, LA, MN, VA for testing and outdoor weathering.

# NTPEP data used for VDOT sheeting approval

- New and weathered sheeting requirements  
(Retro and Color Durability)
- Weathered sheeting requirements:
  - A. Construction Sheeting - require 1 year evaluation
  - B. Permanent Sheeting - require full 3 year evaluation
- VDOT Specs require NTPEP testing and review of Data Mine data prior to approval.



Sheeting Type/Class:

IV

Field Data

Raw Sheeting Data

Site Name:

McDowell VA

Test Name:

Test Summary

**Coefficient of Retroreflection ( $R_A$ )**  
**Light Tunnel - (0.2/-4.0) (cd/lux/m<sup>2</sup>)**

	Initial		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°
Sample A	123	109			122	102	117	96
Sample B	116	109			117	101	114	97
File Specimen	122	114			119	105	117	102

**Coefficient of Retroreflection ( $R_A$ )**  
**Light Tunnel- (0.2/+30) (cd/lux/m<sup>2</sup>)**

	Initial		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°
Sample A	55	59			50	56	48	51
Sample B	52	59			51	57	48	53
File Specimen	54	61			53	58	51	56

# Cost Savings Potential

- Potential cost savings using NTPEP sign sheeting data instead of in-house testing.
  - **Based on 10 samples per year evaluated (NTPEP evaluates approximately 60 per year)**
  - **Cost savings estimated at approximately \$8000 per year**



# NTPEP Annual Meetings

- Each **contributing** state gets to send 1 representative
- Every technical committee's chair and vice chair gets to attend free of charge
- AASHTO Committee NTPEP Liaisons get to attend free of charge
- An opportunity to meet, collaborate, and network with your counterparts across the country
- 2017 Annual Meeting:
  - Sunday, March 12<sup>th</sup> - Thursday, March 16<sup>th</sup>, 2017
  - Boston, Massachusetts
  - Registration through the NTPEP website, [www.ntpep.org](http://www.ntpep.org)

# Ideas on How to Incorporate NTPEP into your QA Program

- For products that are part of NTPEP and used in your state:
  1. Review Work Plan
  2. Review DataMine
  3. Consider cost savings
- Get in touch with a state that participates and requires NTPEP evaluations!

# Questions?

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AASHTO

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