Manufacturers, vendors, or suppliers that wish to be added to the Department's approved lists are to contact the Materials and Research section at <a href="mailto:DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a>.

### Approved Product Lists:

- Asphalt Release Agents
- Breakaway I-Beam
- Concrete Admixtures
- Concrete Curing Compounds
- Detectable Warning Surfaces and Directional Tactile Surface Indicators
- Guardrail End Terminals
- Guardrail Hardware
- High Tension Cable Barrier
- Hot Applied Joint and Crack Sealants
- Pavement Markings
- Permanent Impact Attenuators
- Preformed Flexible Joint Sealant
- Rolled Erosion Control Products
- Sign Panels
- Silane Sealers
- Tack Coat
- Temporary Traffic Control Devices

### Acceptance Programs:

- Asphalt Release Agents
- Concrete Admixtures
- Concrete Curing Compounds
- Highway Safety Hardware and TTC
- Hot Applied Joint and Crack Sealant
- Pavement Markings
- Preformed Flexible Joint Sealant
- Sign Panels
- Silane Sealers
- Tack Coat

# Delaware Department of Transportation Approved Products List

**Asphalt Release Agents (Section 1010)** 

	Aspliant Nelease Agents (Section 1919)				
Manufacturer	Product Name	NTPEP Number	Approval Date		
CLEANEDGE LLP	2217	ARA-2021-01-002	8/29/2024		
Zep, Inc.	NO. 1 Asphalt Release Agent	ARA-2024-01-009	3/18/2025		
Zep, Inc.	Pinnacle Asphalt Release Agent	ARA-2025-01-003	3/18/2025		
Zep, Inc.	BMF Asphalt Release Agent	ARA-2024-01-011	3/18/2025		

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

### Delaware Department of Transportation Approved Products List Breakaway I-Beam Sign Hardware

Pay Item Number/ Specification Section	Device	Manufacturer	Product Name	Crash Test Standard	Test Level	FHWA Eligibility Letter
820014 820015 820016	Bolt Kit for Breakaway Coupling Hinge Plate for Breakaway Coupling Breakaway Coupling Kit	Transpo Industries, Inc.	Break-Safe Omni-Directional Breakaway Sign Support System	NCHRP-350	TL-3	SS-17 April 1999 FHWA Letter

# Delaware Department of Transportation Approved Products List Concrete Admixtures

C	oncrete Admixtures		
Air	<b>Entrainment Agents</b>		
Manufacturer	Product Name	NTPEP#	Approval Date
Master Builders Solutions Admixtures US, LLC	MasterAir AE 90	CADD-2020-01-067	8/29/2024
Sika Corporation	Sika AEA-14	CADD-2020-01-138	8/29/2024
Great Eastern Technologies LLC	Setcon 6A	CADD-2020-01-084	8/29/2024
Great Eastern Technologies LLC	AIR-RIGHT	CADD-2020-01-086	8/29/2024
GCP Applied Technologies (WR Grace)	Daravair AT30	CADD-2018-01-064	8/29/2024
GCP Applied Technologies (WR Grace)	Daravair 1000	CADD-2018-01-063	8/29/2024
Type A - V	Water-Reducing Admix	ctures	
Manufacturer	Product Name	NTPEP #	Approval Date
Master Builders Solutions Admixtures US, LLC	MasterPozzolith 700	CADD-2019-01-055	8/29/2024
Sika Corporation	Sika ViscoFlow 2020	CADD-2021-01-182	8/29/2024
Sika Corporation	Sika Plastocrete-250	CADD-2021-01-183	8/29/2024
Master Builders Solutions Admixtures US, LLC	MasterPozzolith 200	CADD-2018-01-032	8/29/2024
GCP Applied Technologies (WR Grace)	ADVA CAST 600	CADD-2017-01-030	8/29/2024
Chryso, Inc	CHRYSO Optima 249	CADD-2018-01-110	8/29/2024
Sika Corporation	Sika Plastocrete-161	CADD-2020-01-120	8/29/2024
Sika Corporation	Sika ViscoCrete-2100	CADD-2019-01-133	8/29/2024
Type E	3 - Retarding Admixtur	es	
Manufacturer	Product Name	NTPEP #	Approval Date
Type C -	- Accelerating Admixtu	ıres	
Manufacturer	Product Name	NTPEP #	Approval Date
GCP Applied Technologies (WR Grace)	DaraSet 400	CADD-2021-01-163	8/29/2024
Master Builders Solutions Admixtures US, LLC	MasterSet AC 534	CADD-2021-01-005	8/29/2024
AVR, inc.	Pozzolith NC 534 HE		
Type D - Water-R	educing and Retarding	g Admixtures	
Manufacturer	Product Name	NTPEP #	Approval Date
Master Builders Solutions Admixtures US, LLC	MasterSet DELVO	CADD-2018-01-039	8/29/2024
Sika Corporation	Plastiment	CADD-2019-01-070	8/29/2024
Great Eastern Technologies LLC	Chemstrong R	CADD-2020-01-082	8/29/2024
Master Builders Solutions Admixtures US, LLC	MasterSet R 100	CADD-2021-01-073	8/29/2024
Type E - Water-Re	ducing and Acceleration	ng Admixtures	
Manufacturer	Product Name	NTPEP#	Approval Date
Sika Corporation	Sikaset NC	CADD-2019-01-071	8/29/2024
		ı	1

# Delaware Department of Transportation Approved Products List Concrete Admixtures

Product Name  MasterRheobuild 1000  Sika ViscoCrete-2100  MasterGlenium 3030  MasterGlenium 3400  Sika ViscoFlow 2020  Polystrong HP  ADVA Cast 555  ADVA Cast 575  ADVA Cast 585  ADVA CAST 600  MasterGlenium 7500  MasterGlenium 7710  CHRYSO Optima 249	NTPEP #  CADD-2019-01-060  CADD-2019-01-134  CADD-2020-01-071  CADD-2020-01-073  CADD-2021-01-001  CADD-2022-01-029  CADD-2022-01-024  CADD-2022-01-028  CADD-2021-01-095  CADD-2022-01-112  CADD-2020-01-075	8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024
Sika ViscoCrete-2100 MasterGlenium 3030 MasterGlenium 3400 Sika ViscoFlow 2020 Polystrong HP ADVA Cast 555 ADVA Cast 575 ADVA Cast 585 ADVA CAST 600 MasterGlenium 7500 MasterGlenium 7710	CADD-2019-01-134 CADD-2020-01-071 CADD-2020-01-073 CADD-2021-01-001 CADD-2020-01-085 CADD-2022-01-029 CADD-2022-01-024 CADD-2022-01-028 CADD-2021-01-095 CADD-2022-01-112 CADD-2020-01-075	8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024
MasterGlenium 3030 MasterGlenium 3400 Sika ViscoFlow 2020 Polystrong HP ADVA Cast 555 ADVA Cast 575 ADVA Cast 585 ADVA CAST 600 MasterGlenium 7500 MasterGlenium 7710	CADD-2020-01-071 CADD-2020-01-073 CADD-2021-01-001 CADD-2020-01-085 CADD-2022-01-029 CADD-2022-01-024 CADD-2022-01-028 CADD-2021-01-095 CADD-2022-01-112 CADD-2020-01-075	8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024
MasterGlenium 3400 Sika ViscoFlow 2020 Polystrong HP ADVA Cast 555 ADVA Cast 575 ADVA Cast 585 ADVA CAST 600 MastreGlenium 7500 MasterGlenium 7710	CADD-2020-01-073 CADD-2021-01-001 CADD-2020-01-085 CADD-2022-01-029 CADD-2022-01-024 CADD-2022-01-028 CADD-2021-01-095 CADD-2022-01-112 CADD-2020-01-075	8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024
Sika ViscoFlow 2020 Polystrong HP ADVA Cast 555 ADVA Cast 575 ADVA Cast 585 ADVA CAST 600 MastreGlenium 7500 MasterGlenium 7710	CADD-2021-01-001 CADD-2020-01-085 CADD-2022-01-029 CADD-2022-01-024 CADD-2022-01-028 CADD-2021-01-095 CADD-2022-01-112 CADD-2020-01-075	8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024
Polystrong HP ADVA Cast 555 ADVA Cast 575 ADVA Cast 585 ADVA CAST 600 MastreGlenium 7500 MasterGlenium 7710	CADD-2020-01-085 CADD-2022-01-029 CADD-2022-01-024 CADD-2022-01-028 CADD-2021-01-095 CADD-2022-01-112 CADD-2020-01-075	8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024
ADVA Cast 555 ADVA Cast 575 ADVA Cast 585 ADVA CAST 600 MastreGlenium 7500 MasterGlenium 7710	CADD-2022-01-029 CADD-2022-01-024 CADD-2022-01-028 CADD-2021-01-095 CADD-2022-01-112 CADD-2020-01-075	8/29/2024 8/29/2024 8/29/2024 8/29/2024 8/29/2024
ADVA Cast 575 ADVA Cast 585 ADVA CAST 600 MastreGlenium 7500 MasterGlenium 7710	CADD-2022-01-024 CADD-2022-01-028 CADD-2021-01-095 CADD-2022-01-112 CADD-2020-01-075	8/29/2024 8/29/2024 8/29/2024 8/29/2024
ADVA Cast 585 ADVA CAST 600 MastreGlenium 7500 MasterGlenium 7710	CADD-2022-01-028 CADD-2021-01-095 CADD-2022-01-112 CADD-2020-01-075	8/29/2024 8/29/2024 8/29/2024
ADVA CAST 600 MastreGlenium 7500 MasterGlenium 7710	CADD-2021-01-095 CADD-2022-01-112 CADD-2020-01-075	8/29/2024 8/29/2024
MastreGlenium 7500 MasterGlenium 7710	CADD-2022-01-112 CADD-2020-01-075	8/29/2024
MasterGlenium 7710	CADD-2020-01-075	<u> </u>
		8/29/2024
CHRYSO Optima 249		
O 0	CADD-2018-01-111	8/29/2024
Sika ViscoCrete-4100	CADD-2021-01-185	8/29/2024
ligh Range and Retar	rding Admixtur	es
Product Name	NTPEP #	Approval Date
	ctures	
Product Name	NTPEP #	Approval Date
MasterCast 900	CADD-2020-01-060	8/29/2024
SikaMix PL-100	N/A	8/29/2024
	Performance Admix Product Name MasterCast 900	Performance Admixtures  Product Name NTPEP #  MasterCast 900 CADD-2020-01-060

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

# Delaware Department of Transportation Approved Products List Concrete Curing Compound

### **Type 2 Sprayable Curing Compound (ASTM C309 Type 2)**

1760 = 0616.76.6	o compound (rice		<u> </u>
Manufacturer	Product Name	NTPEP#	Approval Date
W.R. Meadows Inc.	White 1600	N/A	8/29/2024
W.R. Meadows Inc.	1200 White Series	N/A	8/29/2024
W.R. Meadows Inc.	CC-309-2WS	N/A	8/29/2024
ChemMasters	SilencureDOT	N/A	8/29/2024
ChemMasters	Safe-Cure 1200	N/A	8/29/2024
Kaufman Products, Inc.	Thinfilm 445	N/A	8/29/2024
Kaufman Products, Inc.	Thinfilm 450	N/A	8/29/2024
Dayton Superior Corporation	White Resin Cure J10W	N/A	8/29/2024
Dayton Superior Corporation	White Wax Cure J9A	N/A	8/29/2024
W.R. Meadows Inc.	1640-White	N/A	8/29/2024

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

# Delaware Department of Transportation Approved Products List

### Truncated Dome Detectable Warning Surfaces (DWS) - 705007 & 705013

Truncated Donne De	stectable warning Surfa	ices (DW3) - 703007 & 703	013
	DWS Type - Precast C	Concrete	
Manufacturer	Product Name	Color(s)	Approval Date
Nitterhouse Masonry Products, LLC	VIP Pavers	Dark Gray (PG-4), Light Gray (PG-7), Red (PG-8), Yellow (PG-65)	3/13/2024
Hanover Architectural Products	Detectable Warning Paver	Charcoal, Red, Yellow	3/13/2024
DV	VS Type - Fired Clay Bric	k Paver Units	
Manufacturer	Product Name	Color(s)	Approval Date
			<u> </u>
	+		+
	DWS Type - Cast Iror	n Plates	
Manufacturer	Product Name	Color(s)	Approval Date
Neenah Enterprises, Inc.	Detectable Warning Plate	Federal yellow, Brick Red, Dark Gray, Black	8/27/2024
East Jordan Iron Works	DURALAST 7005	Natural, Brick Red, Federal Yellow, Black	8/27/2024
	DWS Type - Polymer C	omposite	
Manufacturer	Product Name	Color(s)	Approval Date

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

# Delaware Department of Transportation Approved Products List Directional Tactile Surface Indicators (DTSI) - 705012

	DTSI Type - Precas	st Concrete		
Manufacturer	Product Name	Color(s)	Approval Date	
Nitterhouse Masonry Products, LLC	VIP Pavers	Dark Gray (PG-4), Light Gray (PG-7), Red (PG-8), Yellow (PG-65)	3/13/2024	
DT	SI Type - Fired Clay E	Brick Paver Units		
Manufacturer	Product Name	Color(s)	Approval Date	
	DTSI Type - Cast I	ron Plates		
Manufacturer	Product Name	Color(s)	Approval Date	
	DTSI Type - Polyme	r Composite		
Manufacturer	Product Name	Color(s)	Approval Date	

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

### **Delaware Department of Transportation Approved Products List Guardrail End Treatments** 721000 - Guardrail End Treatment, Type 1-31, Test Level 2 Manufacturer **Product Name** Approval Date MASH-compliant Sequential Kinking Terminal (MSKT) - TL-2 Road Systems, Inc. N/A 721001 - Guardrail End Treatment, Type 1-31, Test Level 3 **Product Name** Manufacturer **Approval Date** Lindsay Transportation Solutions, LLC MAX-Tension - TL-3 End Treatment N/A MASH-compliant Sequential Kinking Terminal (MSKT) - TL-3 Road Systems, Inc. N/A Valtir SoftStop System - TL-3 N/A 721002 - Guardrail End Treatment, Type 2-31, Test Level 2 Manufacturer **Product Name Approval Date** 721003 - Guardrail End Treatment, Type 2-31, Test Level 3 **Product Name Approval Date** Manufacturer Road Systems, Inc. Flared Energy Absorbing Terminal (MFLEAT) N/A 721004 - Guardrail End Treatment, Type 3-31 Manufacturer **Product Name** Approval Date Lindsay Transportation Solutions, LLC MAX-Tension Median End Treatment N/A Median Attenuating Trend Terminal (MATT) N/A Valtir

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

<sup>\*\*</sup> For a product to remain eligible for DelDOT's APL it must continue to meet specification requirements and provide adequate field performance

### **Delaware Department of Transportation Approved Products List Guardrail Hardware** 720.2.G.2 - Composite Offset Blocks Manufacturer **Product Name** Approval Date Recycled Composite Offset Block, 8" N/A Valtir Recycled Composite Offset Block, 12" N/A Mondo Polymer Technologies, Inc. Recycled Composite Offset Block, 8" N/A Mondo Polymer Technologies, Inc. Recycled Composite Offset Block, 12" N/A

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

<sup>\*\*</sup> For a product to remain eligible for DelDOT's APL it must continue to meet specification requirements and provide adequate field performance

# Delaware Department of Transportation Approved Products List High Tension Cable Barrier

# High Tension Cable Barrier 722001 - High Tension Cable Barrier Manufacturer Product Name Approval Date Gibraltar Global MASH 2016 TL4 Cable Barrier System 11/25/2024 722002 - High Tension Cable Barrier End Terminal Manufacturer Product Name Approval Date Gibraltar Global MASH 2016 TL3 4 Cable End Terminal 11/25/2024

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

<sup>\*\*</sup> For a product to remain eligible for DelDOT's APL it must continue to meet specification requirements and provide adequate field performance

# Delaware Department of Transportation Approved Products List Joint and Crack Sealant

### Hot Applied Sealants (ASTM D6690 Type II)

That Applied Scalaries (ASTIVI 20030 Type II)				
Manufacturer	Product Name	JS-CS NTPEP #	Approval Date	
Crafco, inc.	Roadsaver 221	CS-2017-01-002	11/25/2024	
Maxwell Products, Inc.	Elastoflex 61	JS-2022-01-003	11/25/2024	
P&T Products	Dura-Fill 3405	CS-2023-02-002	10/5/2025	

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

# Delaware Department of Transportation Approved Products List

### Pavement Marking Material (2020 and 2016 Standard Specfications)

### **Latex Paint**

Material requ	uires Glass Beads	<ol> <li>See below for acce</li> </ol>	eptable products	for this material.
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Item#	Item Description	Approved Pavement Marking Material (in accordance with 1071.1)	
iteili #	itelii Descriptioli	Manufacturer	Code (Color)
817001	PAINTING OF WHITE OR YELLOW, SYMBOL/LEGEND		
817003	TEMPORARY MARKINGS, PAINT, 4"	AEXCEL CORPORATION	72W-A042 (White)
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	PPG/ ENNIS-FLINT, INC.	980801 (White)
817026	PAINTING OF WHITE OR YELLOW, 5" LINE	PPG/ ENNIS-FLINT, INC.	980802 (Yellow)
817047	PAINTING OF WHITE OR YELLOW, 6" LINE	SHERWIN WILLIAMS	TM2308 (White)
817048	PAINTING OF WHITE OR YELLOW, 10" LINE	SHERWIN WILLIAMS	TM2309 (Yellow)
817049	PAINTING OF WHITE OR YELLOW, 12" LINE		

### **Epoxy Paint**

### Material requires Glass Beads. See below for acceptable products for this material.

Item#	Item Description	Approved Pavement Marking Material (in accordance with 107	
iteiii#	itelii Descriptioli	Manufacturer	Code (Color)
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"		
817014	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 10"	EPOPLEX	LS50 (White)
817018	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 3"	EPOPLEX	LS50 (Villey)
817019	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 5"	EPOPLEX	LS50 (Pellow)
817024	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 9"	OLIN POLY-CARB	MARK-55.3 (White)
817025	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 14"	OLIN POLY-CARB	MARK-55.3 (Yellow)
817036	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 6"	OLIN POLY-CARB	MARK-55.3 (Fellow)
817042	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 6"	PPG/ ENNIS-FLINT, INC.	HPS-3 (White)
817043	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 12"	PPG/ ENNIS-FLINT, INC.	HPS-3 (Yellow)
817044	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 6"	PPG/ ENNIS-FLINT, INC. PPG/ ENNIS-FLINT, INC.	HPS-3 (Black)
817045	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 10"	FFG/ EINING-FLINT, INC.	FIF3-3 (BIdCK)
817046	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 16"		

	Alkyd Type Thermoplastic				
	Material requires Glass Beads. See below for a	-			
Itana #			aterial (in accordance with 1071.3.1)		
Item #	Item Description	Manufacturer	Code (Color)		
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	CROWN USA INC	TuffLine 01 - WAX - BADA (White)		
817005	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 5"	CROWN USA INC	EcoTherm 01 – YAX – AADA (Yellow)		
817006	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	PPG/ ENNIS-FLINT, INC.	884455 (W5E-5BX-DE) (White)		
817037	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 4"	PPG/ ENNIS-FLINT, INC.	884490 (W5E-5GX-DE) (White)		
817038	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 6"	PPG/ ENNIS-FLINT, INC. PPG/ ENNIS-FLINT, INC.	883110 (ET4 – AK - SX - YNL – 1) (Yellow) 884685 (Yellow)		
	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 6"	SWARCO	2633 XWARX (White)		
	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 10"	SWARCO	2663 XYARX (Yellow)		
017041		lastic Christian			
	Preformed Thermor				
Item #	Item Description	Approved Pavement Marking Material (in accordance with 1071.3			
	· · · · · · · · · · · · · · · · · · ·	Manufacturer	Code (Color)		
817015	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, BIKE SYMBOL	PPG/ ENNIS-FLINT, INC. PPG/ ENNIS-FLINT, INC.	PREMARK (White) PREMARK (Yellow)		
		PPG/ ENNIS-FLINT, INC.	PREMARK (Tellow)		
817016	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, PEDESTRIAN SYMBOL	PPG/ ENNIS-FLINT, INC.	PREMARK XF (Yellow)		
817017	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, HANDICAP SYMBOL	SWARCO (ASPHALT ONLY)	NO PREHEAT (White)		
017017	·	SWARCO (ASPHALT ONLY)	NO PREHEAT (Yellow)		
	Pavement Marking Tape	e - Preformed Tape			
Item #	Item Description	Approved Pavement Marking Ma	terial (in accordance with 1071.3.3.C)		
		Manufacturer	Code (Color)		
	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, 12"				
	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND	3M COMPANY	380 AW (White)*		
	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, 5"	3M COMPANY	381 AW (Yellow)*		
	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, 10"	3M COMPANY	380IES (White)**		
817022	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, 8"	- 3M COMPANY	381IES (Yellow)**		
817023	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, 13"	- 3M COMPANY	380IES-5 (White-Black)		
817034	RETROREFLECTIVE PERFORMED PATTERNED MARKINGS, 9"	JIVI COIVII AIVI	Sooils S (Writte Black)		
817035	RETROREFLECTIVE PERFORMED PATTERNED MARKINGS, 4"				
	AW and 381 AW is to be used for longitudinal lines only.				
* Type 380I-ES and 381I-ES is to be used for all transverse lines, mini skips, arrows and symbols.					

	Raised Pavement Markers							
Item #	Item Description	Manufacturer	- Code/ Model					
817027	RAISED/RECESSED PAVEMENT MARKER	PPG/ ENNIS-FLINT, INC Stimsonite Model 101LPCR with Model C40 reflective paver marker						
	Raised Pavement Marker Replacement Reflectors							
Item # Item Description Manufacturer - Code/ Model								
017020	REPLACEMENT OF RAISED/RECESSED PAVEMENT MARKER LENS	3M COMPANY - Series 190 Reflective Lenses						
817028	REPLACEIVIENT OF KAISED/ RECESSED PAVEIVIENT IVIARRER LENS	PPG/ ENNIS-FLINT, INC. – Stimsonite Model C40 Reflective Lenses						
	Glass Bea	ads						
Notes:		Manufacturer	Code					
1. Product	must meet the requirements contained in 1071.4.	POTTERS INDUSTRIES INC.	AASHTO M-247 TYPE 1 80% ROUNDS					
2. Glass Be	ads are required for Latex Paint, Epoxy Paint, and Alkyd Type Thermoplastic.	POTTERS INDUSTRIES INC. AASHTO M-247 TYPE 4 LARGE BE						
3. All bead	s furnished shall be moisture proof	SWARCO REFLEX AASHTO M-247 TYPE 1 80% ROUN						
		SWARCO REFLEX AASHTO M-247 TYPE 4 LARGE BEAD						

### Notes:

Suppliers that wish to submit products for Department consideration for inclusion on the Approved Products List are to contact the Department's Materials and Research Section at 302-760-2400.

DelDOT reserves the right to remove a product from the APL or change its classification when field performance proves the product is unsatisfactory.

THE STATE OF DELAWARE IS A LEAD - FREE STATE! ALL PAVEMENT MARKINGS USED IN DELAWARE SHALL BE LEAD - FREE.

	Delaware Department of Transportation		
	Approved Products List		
		are and	
	Pavement Marking Material (2025 Standard Specifica	itions)	
	1071.1.1 - Latex Paint (Section 860)		
Manufacturer AEXCEL CORPORATION	Product Name 72W-A042 (White)	PEAS # (FKA NTPEP) NA	Approval Date
PPG/ ENNIS-FLINT, INC.	980801 (White)	PMM-2000PA-109	11/26/2024 11/26/2024
PPG/ ENNIS-FLINT, INC.	980802 (Yellow)	PMM-2000PA-115	11/26/2024
SHERWIN WILLIAMS	TM2308 (White)	NA	11/26/2024
SHERWIN WILLIAMS	TM2309 (Yellow)	NA	11/26/2024
	1071.2.1 - Epoxy Paint (Section 861)		
Manufacturer	Product Name	PEAS # (FKA NTPEP)	Approval Date
EPOPLEX	LS50 (White, Yellow, and Black)	PMM-2024-01-090 PMM-2024-01-089	11/26/2024
OLIN POLY-CARB	MARK-55.3 (White, Yellow, and Black)	PMM-2022-01-068 PMM-2022-01-069	11/26/2024
PPG/ ENNIS-FLINT, INC.	HPS-3 (White, Yellow, and Black)	PMM-2018-01-120 PMM-2018-01-121	11/26/2024
107	1.3.1 - Alkyd Type Thermoplastic Striping Material (Se	ection 862)	
Manufacturer	Product Name	PEAS # (FKA NTPEP)	Approval Date
CROWN USA INC	TuffLine 01 - WAX - BADA (White)	PMM-2015-02-082	11/26/2024
CROWN USA INC	EcoTherm 01 – YAX – AADA (Yellow)	PMM-2015-02-083	11/26/2024
PPG/ ENNIS-FLINT, INC.	884455 (W5E-5BX-DE) (White)	PMM-2018-01-128	11/26/2024
PPG/ ENNIS-FLINT, INC.	884490 (W5E-5GX-DE) (White)	PMM-2018-01-128	11/26/2024
PPG/ ENNIS-FLINT, INC.	883110 (ET4 – AK - SX - YNL – 1) (Yellow)	PMM-2018-01-130	11/26/2024
PPG/ ENNIS-FLINT, INC.	884685 (Yellow)	PMM-2018-01-129	11/26/2024
SWARCO			<u> </u>
	2633 XWARX (White)	PMM-2017-01-051	11/26/2024
SWARCO	2663 XYARX (Yellow)	PMM-2017-01-052	11/26/2024
107	1.4 - Preformed Thermoplastic Pavement Markings (Se	ection 863)	
Manufacturer	Product Name	PEAS # (FKA NTPEP)	Approval Date
PPG/ ENNIS-FLINT, INC.	PREMARK (White)	PMM-2017-01-025	11/26/2024
PPG/ ENNIS-FLINT, INC.	PREMARK (Yellow)	PMM-2017-01-026	11/26/2024
PPG/ ENNIS-FLINT, INC.	PREMARK XF (White)	PMM-2019-01-064	11/26/2024
PPG/ ENNIS-FLINT, INC.	PREMARK XF (Yellow)	PMM-2019-01-065	11/26/2024
SWARCO	NO PREHEAT (White) (asphalt only)	PMM-2017-01-009	11/26/2024
SWARCO	NO PREHEAT (Yellow) (asphalt only)	PMM-2017-01-011	11/26/2024
	1071.5 - Preformed Pavement Marking Tape (Section		
Manufacturer	Product Name	PEAS # (FKA NTPEP)	Approval Date
3M COMPANY 3M COMPANY	380 AW (White) (for longitudinal lines only) 381 AW (Yellow) (for longitudinal lines only)	PMM-2020-01-009 PMM-2020-01-003	11/26/2024 11/26/2024
3M COMPANY	380IES (White) (for all transverse lines, mini skips, arrows and symbols)	PMM-2022-01-104	11/26/2024
3M COMPANY	381IES (Yellow) (for all transverse lines, mini skips, arrows and symbols)	PMM-2020-01-007	11/26/2024
3M COMPANY	380IES-5 (White-Black)	PMM-2022-01-102	7/21/2025
	1071.8 - Raised/ Recessed Pavement Marker (8670	•	
Manufacturer	Product Name	PEAS # (FKA NTPEP)	Approval Date
PPG/ ENNIS-FLINT, INC.	Stimsonite Model 101LPCR with Model C40 reflective pavement marker	RPM-2016-01-005	11/26/2024
1			1

### **Delaware Department of Transportation Approved Products List**

**Pavement Marking Material (2025 Standard Specifications)** 

1071.8 - Raised/ Recessed Pavement Marker Replacement Reflectors (867004)							
Manufacturer	Product Name	PEAS # (FKA NTPEP)	Approval Date				
3M COMPANY	Series 190 Reflective Lenses	NA	11/26/2024				
PPG/ ENNIS-FLINT, INC.	Stimsonite Model C40 Reflective Lenses	RPM-2016-01-005	11/26/2024				
	1071.1.2, 1071.2.2, 1071.3.2 - Glass Bea						
Manufacturer	Product Name	PEAS # (FKA NTPEP)	Approval Date				
POTTERS INDUSTRIES INC.	AASHTO M-247 TYPE 1 80% ROUNDS	NA	11/26/2024				
POTTERS INDUSTRIES INC.	AASHTO M-247 TYPE 4 LARGE BEAD	NA	11/26/2024				
SWARCO REFLEX	AASHTO M-247 TYPE 1 80% ROUNDS	NA	11/26/2024				
SWARCO REFLEX	AASHTO M-247 TYPE 4 LARGE BEAD	NA	11/26/2024				

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

\*\* For a product to remain eligble for DelDOT's APL it must continue to meet specification requirements and provide adequate field performance

Delawai	re Department of Transportation	
	Approved Products List	
Per	manent Impact Attenuators	
724001 - Pe	ermanent Impact Attenuator, Type 1	
Manufacturer	Product Name	Approval Date
	ermanent Impact Attenuator, Type 2	
Manufacturer	Product Name	Approval Date
Lindsay Transportation Solutions, LLC	Universal TAU-M MASH Crash Cushion (TL-2)	N/A
Valtir	QuadGuard M10 Test Level 2 System (3 Bay)	N/A
724003 - Pe	ermanent Impact Attenuator, Type 3	
Manufacturer	Product Name	Approval Date
Hill & Smith	SCI SmartCushion® TL-2 SCI70GM Impact Attenuator	N/A
724004 - Pe	ermanent Impact Attenuator, Type 4	
Manufacturer	Product Name	Approval Date
	ermanent Impact Attenuator, Type 5	
Manufacturer	Product Name	Approval Date
Lindsay Transportation Solutions, LLC	Universal TAU-M MASH Crash Cushion (TL-3)	N/A
Valtir	QuadGuard M10 Test Level 3 System (6 Bay)	N/A
Valtir	QuadGuard M10 CZ 6-Bay, 24" Only	N/A
724006 - Pe	ermanent Impact Attenuator, Type 6	
Manufacturer	Product Name	Approval Date
Lindsay Transportation Solutions, LLC	TAU-XR Xpress Repair Crash Cushion	N/A
Valtir	QuadGuard Elite M10 (8 Bay)	N/A
Hill & Smith	SCI SmartCushion® TL-3 SCI100GM Impact Attenuator	N/A
724008 - Perman	nent Impact Attenuator, Wide Bay, Type 2	
Manufacturer	Product Name	Approval Date
724000 Downson	ant bound to Attornation Mide Don Tours 2	
	nent Impact Attenuator, Wide Bay, Type 3	I
Manufacturer	Product Name	Approval Date
724010 - Perman	nent Impact Attenuator, Wide Bay, Type 5	
Manufacturer	Product Name	Approval Date
Valtir	QuadGuard M Wide (6 Bay)	N/A
<b>724011</b> - Perman	nent Impact Attenuator, Wide Bay, Type 6	
Manufacturer	Product Name	Approval Date
Valtir	QuadGuard Elite M10 Wide (8 Bay)	N/A

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

<sup>\*\*</sup> For a product to remain eligible for DelDOT's APL it must continue to meet specification requirements and provide adequate field performance

# Delaware Department of Transportation Approved Products List Preformed Flexible Joint Sealants

### 1042.5.A - Precast Flexible Joint Sealants (ASTM C990)

Manufacturer	Product Name	Approval Date			
ConSeal	ConSeal CS-102	11/25/2024			

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

<sup>\*\*</sup> For a product to remain eligible for DelDOT's APL it must continue to meet specification requirements and provide adequate field performance

### **Approved Product List for Rolled Erosion Control Products**

### Delaware Department of Transportation Dover, DE 19901

February 23, 2024

The Approved Product List (APL) is developed using data obtained from testing by the National Transportation Product Evaluation Program (NTPEP) Index Tests of Rolled Erosion Control Products (RECP), a cooperative effort by AASHTO, the Erosion Control Technology Council, and by manufacturers of rolled erosion control blankets. The APL is further scrutinized by the field performance of products that have been used extensively in projects by the Delaware Department of Transportation (DelDOT) with satisfactory results.

The following guidelines will be used for RECP selection:

- 1. On grass channels that have a maximum shear stress at design flow of less than or equal to 2 pounds per square foot (psf), all Erosion Control Blankets (ECB) will have predominately biodegradable, natural, organic fiber nettings as determined by DelDOT. These are short-term biodegradable blankets.
- 2. On grass channels that have a maximum shear stress at design flow greater than 2psf, only RECPs that are classified as long-term non-degradable blankets will be used. These products are termed Turf Reinforcement Mats (TRM).

Pre-approval procedures and the current APL may be obtained by writing to the E&S Engineer, Delaware Department of Transportation, 800 S. Bay Rd., Dover, DE 19901, calling 302 760-2259, or viewing DelDOT's web page at 'https://deldot.gov/Business/index.shtml'.

DelDOT reserves the right to remove a product from the APL or change its' classification when field performance proves the product to be unsatisfactory.

# Rolled Erosion Control Products DelDOT Approved Product List, February 23, 2024

RECP Type, DelDOT	Approved Product List, February 25, 2024  Approved Products			
Bid Item Number	Manufacturer	Product Name		
		AEC Premier Straw / Coconut FibreNet		
		AEC Premier Straw FibreNet Double Net		
	American Excelsior	AEC Premier Coconut FibreNet		
		Curlex III FibreNet		
		Curlex II FibreNet		
	Western Green/East Coast Erosion Blankets	ECC-2B		
	E ECM	C4000BD		
	Enviroscape ECM	SC3000BD		
Erosion Control Blanket	ErosionControlBlanket.com	C32BD		
Item No. 908020		ETC-100-BN		
10111110. 900020	Erosion Tech	ETRS-2-BN		
		ETX-2-HVBN		
		C125BN		
	Western Green/North American	S150BN		
	Green	SC150BN		
	US Erosion Control Products	US 2SC NN		
	os Bresien conner i reducis	EXCEL CC-4 All Natural		
	Western Green/Western Excelsion	EXCEL CS-3 All Natural		
	Western Green Western Encourse	EXCEL SS-2 All Natural		
		Recyclex TRM		
	American Excelsior	Recyclex TRM-V		
	Western Green/East Coast Erosion	ECP-2		
	Blankets	ECSC-3		
Turf Reinforcement Mat,	Enviroscape ECM	P5000		
Type 1 Item No. 908021	ErosionControlBlanket.com	P42		
	Erosion Tech	ETPP-10		
	Western Green/Western Excelsion	EXCEL PP5-10		
	Plus TRM Type 2 blankets	EACEL II 3-10		
	11us 1 KW 1 ype 2 blankets	Curlex Enforcer		
	Amaniaan E1-i	TriNet Straw/Coconut		
	American Excelsior	TriNet Coconut		
		TriNet Curlex		
		TriNet Recyclex		
	GrassWorx	InstaTurf ShearForce10		
Turf Reinforcement Mat,	Western Green/East Coast Erosion	ECC-3		
Type 2 Item No. 908022	Blankets	ECP-3		
71		C350		
	Western Green/North American	P550		
	Green	SC250		
		P300		
	Propex	Landlok 450		
	-	Pyramat 25/50/75		
	Western Green/Western Excelsior	EXCEL PP5-12		

## Delaware Department of Transportation Approved Fabricators List

818.2 - Sign Panels

o16.2 - Sign Fancis								
Fabricator	Contact Number	Address	Email	Email Approvals		Approvals		
Fabricator	Contact Number	Address	Address Email Applied Vinyl S		Screen Printing	Digital Printing	Audit	
Atlas Flasher & Supply Co. Inc	1-856-423-3333	430 Swedesboro Ave Mickleton NJ, 08056	Sales@AtlasFlasher.com	Х	х	х	6/4/2025	
Custom Products Corp.	1-800-367-1492	1120 Flowood Drive Flowood MS, 39232	heidi@cpcsigns.com	Х	х	х	9/2/2025	
Direct and Correct, Inc	1-302-697-7117	6236 Mud Mill Road Camden Wyoming, DE	DirectCorrect@yahoo.com	Х			8/29/2024	
National Highway Products, Inc (FKA Garden State Highway Products)	1-800-338-5685	301 Riverside Drive, Millville, NJ	sales@nationalhighway.com	Х	х	х	12/9/2024	
Right Way Flagging and Sign Co	1-302-698-5229	3918 Mud Mill Rd Camden Wyoming, DE	rightwayflagging@gmail.com	Х			11/13/2024	
Rocal, Inc.	1-740-998-2122	3186 CR 550, Frankfort, OH	NA	Х	х	х	9/5/2024	
Shannon Baum Signs, Inc	1-410-781-4000	105 Competitive Goals Dr, Sykesville, MD	sign@shannonbaum.com	Х	х	х	9/11/2024	
Traffic Safety & Signs, Inc	1-610-925-1990	703 Terminal Way, Kennet Square, PA	NA	Х		Х	10/30/2024	

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

<sup>\*\*</sup> For a product to remain eligible for DeIDOT's APL, it must continue to meet specification requirements and provide adequate field performance

# Delaware Department of Transportation Approved Products List

# Silane-Based Concrete Sealer Manufacturer Product Name CCS NTPEP # Approval Date Evonik Corporation Protectosil 100, Water Repellent NA 8/29/2024 Sika Sikagard H 1000 NA 11/18/2024

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

### **Delaware Department of Transportation Approved Products List Emulsified Asphalt Tack Coats Approved Tack Coat Manufacturers Approved Grades** Manufacturer Polymer-Modified Approval Date Anionic (1011.3.1) Non-Tracking (1011.3.4) Cationic (1011.3.2) Cationic (1011.3.3) CRS-1, CRS-2, CRS-2L, Asphalt Emulsion Industries, Inc. (Dumfries, VA) CQS-1hP, CRS-2P 6/13/2024 CSS-1h, CQS-1h CSS-1h, CRS-1, CRS-2, CQS-1hP, CRS-2L/P Asphalt Emulsion Industries, Inc. (Manassas, VA) 6/13/2024 CQS-1h CSS-1, CSS-1H, CRS-2, CQS-1HP, CRS-2P, Asphalt Paving Systems (Hammonton, NJ) 6/13/2024 CRS-1H, CRS-1 CRS-1P Russell Standard (Baltimore, MD) CRS-2P CNTT, U-BondUTFCEM 9/11/2024 CRS-1, CRS-2 CNTT, THMACO/UBOND Russell Standard (Chambersburg, PA) CSS-1H, CRS-2, CRS-2L 8/21/2025 CRS-1, CRS-1h, CRS-2, Russell Standard (Reading, PA) CRS-2P CNTT, THMACO/UBOND 8/21/2025 CRS-2L, CSS-1h, CQS-1h CRS-1, CRS-2, CRS-1h, Russell Standard (Seaford, DE) CNTT 6/13/2024 CRS-2hL, CRS-2L, CSS-1h Seaboard Asphalt Products (Baltimore, MD) EM-50-TT 8/21/2025 SS1H CRS-1H, CRS-2, CSS-1H CRS-2P EM-50-TT 6/13/2024 Specialty Emulsions Inc (York, PA) **Approved Tack Coat Suppliers** 1011.3.1 - Anionic Emulsified Asphalt (AASHTO M140) Product Name (Grade) **Approval Date** Product Name (Grade) **Approval Date** Supplier Supplier 1011.3.2 - Cationic Emulsified Asphalt (AASHTO M208) Product Name (Grade) Approval Date Product Name (Grade) Approval Date Supplier Supplier 1011.3.3 - Polymer-Modified Cationic Emulsified Asphalt (AASHTO M316) **Approval Date** Supplier Product Name (Grade) **Approval Date** Supplier Product Name (Grade) 1011.3.4 - Non-Tracking Emulsified Asphalt (Table 1011.3) Supplier Product Name (Grade) **Approval Date** Supplier Product Name (Grade) **Approval Date**

<sup>\*</sup> Inclusion on this APL does not constitute Buy America preference compliance

<sup>\*\*</sup> For a product to remain eligible for DelDOT's APL, it must continue to meet specification requirements and provide adequate field performance

# Delaware Department of Transportation Approved Products List Temporary Impact Attenuators / Sand Crash Cushion Arrays

Pay Item		- Jack Attendators / Jana Crash	NCHRP-350	MASH Test	FHWA Eligibility
Number	Manufacturer	Product Name	Test Level <sup>4</sup>	Level	Letter
	TEMPORARY IM	PACT ATTENUATORS - GATING, NO	N-REDIREC	TIVE⁵	
809002	Valtir, Inc. (EASI)	N-E-A-T System	TL-2		<u>CC-25</u>
809002			TL-2		<u>B-26</u> CC-47B
	1				CC-47
	Valtir, Inc. (EASI)	Triton Barrier CET			CC-47A
809003			TL-3		<u>CC-47B</u>
					<u>CC-47C</u>
809003	Valtir, Inc. (EASI)	Triton Barrier CET (ACZ-350)	TL-3		<u>CC-47D</u>
	TEMPORARY IM	PACT ATTENUATORS - NON-GATIN	IG, REDIREC	TIVE	
809005	Work Area Protection	SCI SmartCushion® TL-3 SCI100GM Impact Attenuator		TL-3	<u>CC-128</u>
200004	Valtir, Inc. (EASI)	Quadguard M10			CC-112 (TL-3)
809004				TL-2 / TL-3	CC-112A (TL-2 & TL-3)
809005		Quauguai u WIO			CC-112B (TL-3)
809003					CC-112C (TL-3)
809004	Lindsay Transportation Solutions, Inc.	Universal TAU-M MASH Crash Cushion		TL-2	<u>CC-146</u>
809005	Lindsay Transportation Solutions, Inc.	Universal TAU-M MASH Crash Cushion		TL-3	<u>CC-147</u>
809005	Lindsay Transportation Solutions, Inc.	TAU-XR Xpress Repair Crash Cushion		TL-3	N/A
809005	Valtir, Inc.	REACT M		TL-3	<u>CC-169</u>
809012	Valtir, Inc.	QuadGuard M Wide		TL-3	<u>CC-163</u>
809005	TrafFix Devices, Inc.	Delta Crash Cushion		TL-3	<u>CC-167</u>
809005 809005	Valtir, Inc. (Trinity)  Barrier Systems by Lindsay	ADIEM (Advanced Dynamic Impact)  X-TENuator	TL-3		<u>CC-38</u> <u>CC-109</u>
809004					CC-75 (TL-2 & TL-3) CC-75A (TL-2 & TL-3)
809005	Barrier Systems by Lindsay	TAU-II Crash Cushion	TL-2 / TL-3		CC-75B (TL-2 & TL-3) CC-75C (TL-2 & TL-3)
809005	Barrier Systems by Lindsay	TAU-IIR Crash Cuhsion	TL-3		<u>CC-75D</u>

# Delaware Department of Transportation Approved Products List Temporary Impact Attenuators / Sand Crash Cushion Arrays

Pay Item Number Ma 809004	nufacturer	Product Name	NCHRP-350 Test Level <sup>4</sup>	MASH Test Level	ENUM Eligibility Letter  CC-35 (TL-3)  CC-35A (TL-3)  CC-35B (TL-3)  CC-35C (TL-2)
809004					CC-35A (TL-3) CC-35B (TL-3) CC-35C (TL-2)
809004					CC-35B (TL-3) CC-35C (TL-2)
809004					CC-35C (TL-2)
809004					
					CC-35D (TL-3)
					CC-35E (TL-3)
					CC-35F (TL-3)
					<u>CC-35G</u>
Valti	r, Inc. (EASI)	Quadguard / Quadguard II / Quadguard CZ	TL-2 / TL-3		(TL-2 & TL-3)
					<u>CC-35H</u> (TL-2 & TL-3)
					<u>CC-35I</u>
809005					(TL-2 & TL-3)
					<u>CC-35J</u>
					(TL-2 & TL-3) CC-35L
					(TL-2 & TL-3)
					<u>CC-35M</u>
					(TL-2 & TL-3)
					CC-54 (TL-3)
809004 <b>Valtir</b>	Valtir, Inc. (Trinity)	Trinity Attenuating Crash Cushion (TRACC)	TL-2		CC-54A (TL-2)
Value		Timity Attendating crash cushion (TRACE)			
					<u>CC-54C</u> (Transition)
					<u>CC-54E</u>
	Valtir, Inc. (Trinity)				(Modular Base)
809005 Valtir		Trinity Attenuating Crash Cushion (TRACC)	TL-3		<u>CC-54F</u>
					(TL-2 & TL-3) CC-54G
					(TL-2 & TL-3)
809005 <b>Valtir</b>	Inc. (Trinity)	FASTRAC	TL-3		CC-54B (TL-3)
	Inc. (Trinity)	WIDETRACC	TL-3		CC-54H (TL-3) CC-54D (TL-3)
	, (Trinicy)	VIBETIACC			
809004 Valti	r, Inc. (EASI)	REACT 350 / 350 II / 350 CZ	TL-2		CC-26D (TL-2)
809005	.,		TL-3		CC-26E (TL-3)
809004			TL-2		CC-85A (TL-2)
Work A	rea Protection	Smart Cushion SCI70GM / SCI100GM			CC-85 (TL-3)
809005			TL-3		<u>CC-85B</u>
					(Evaluation)

# Delaware Department of Transportation Approved Products List Temporary Impact Attenuators / Sand Crash Cushion Arrays

Pay Item Number	Manufacturer	Product Name	NCHRP-350 Test Level <sup>4</sup>	MASH Test Level	FHWA Eligibility Letter					
	SAND CRASH CUSHION ARRAYS									
809007	TrafFix Devices, Inc.	Big Sandy MASH		TL-3	<u>CC-139</u>					
809007	Valtir, Inc. (EASI)	Energite III System (MASH)		TL-3	<u>CC-164</u>					
					<u>CC-52</u>					
809007	TrafFix Devices, Inc.	Big Sandy	TL-3		<u>CC-52A</u>					
					<u>CC-52B</u>					
809007	Plastic Safety Systems, Inc.	CrashGard -			<u>CC-97</u>					
809007	riastic safety systems, mc.	Clasiidalu	TL-3		<u>CC-97A</u>					
809007	Valtir, Inc. (EASI)	Energite III System	TL-3		<u>CC-29</u>					
809007	Valtir, Inc. (EASI)	Fitch Universal Barrel System	TL-3		<u>CC-28</u>					

### NOTES

- 1. Eligibility letters for NCHRP 350 Devices can be found at: https://safety.fhwa.dot.gov/roadway\_dept/countermeasures/reduce\_crash\_severity/listing-archived.cfm?code=cushions
- 2. Eligibility letters for MASH Devices can be found at:

 $https://safety.fhwa.dot.gov/roadway\_dept/countermeasures/reduce\_crash\_severity/listing.cfm?code=cushions$ 

- 3. Temporary impact attenuators or Sand Crash Cushion Arrays not listed above sholl not be used on any DelDOT construction or mainteance contract without prior written approval from the DelDOT Safety Programs Manager, who is responsible for the above Approved Products List (APL).
- 4. DelDOT's sunset date for NCHRP 350 tested Temporary Impact Attenuators and Sand Crash Cushion Arrays is January 1, 2025. Contracts that are Advertised on or after January 1, 2025 shall be required to have MASH tested Temporary Impact Attenuators and Sand Crash Cushion Arrays.
- 5. NCHRP 350 devices under this category can continue to be used when specified on projects until a MASH-compliant alternative is available.

NCHRP 350 Device Sunset Date Memorandum

# Delaware Department of Transportation Approved Products List Temporary Barrier

		Approved Applications			Eligible 2024 and 2025 Specification Pay Item Numbers							
Manufacturer	Product Name	Unpinned	Pinned in PCC	Pinned in Hot-mix	Eligibility Letters	807020	807021	807022	807023	807024	807025	807026
EASI-SET Industries	J-J Hook F-Shape Temporary PCC Barrier (20' and 12' segments)	Х	Х	Х	B-307, B-300, B-52C, B- 52B	х	Х	Х	Х	Х	Х	Х
Strongstown B&K	JJ Hook F-Shape Temporary PCC Barrier (12' segments)	Х	х	х	<u>B-258</u> , <u>B-344</u>	Х	Х	Х	Х	Х	Х	Х
Valtir, LLC	HighwayGuard Steel Barrier System (20' or 40' segments)	Х	Х	Х	B-322, B-323, B-329, B-330, B331, B-370	Х	Х	Х	Х	Х	Х	х
Northern Infrastructure Products	Cross-Bolt F-Shape Concrete Barrier (12' segments)	Х		Х	<u>B-365</u>	х	Х	Х	Х		Х	

# Delaware Department of Transportation Approved Products List Temporary Sign Stands

	Temporary Sign Stands								
Product Name	Manufacturer	Test Level	Testing Criteria	Application	FHWA Eligibility Code				
	DelDOT Standard	l Item No.	810001 -	MASH Compliant Devices					
SS410A	Plasticade	TL-3	MASH	Temporary Approved for Roll-Up Signs only	<u>WZ-354</u>				
SS440	Plasticade	TL-3	MASH	Temporary 60" mounting height Approved for Roll-Up Signs only	<u>WZ-460</u>				
SS520A	Plasticade	TL-3	MASH	Temporary  Approved for Roll-up Signs only	<u>WZ-356</u>				
		TL-3	MASH	Temporary 60" mounting height Approved for Corrugated Plastic Signs only	<u>WZ-424</u>				
SS620A	A Plasticade	TL-3	MASH	Temporary 84" mounting height Approved for Corrugated Plastic Signs only	<u>WZ-425</u>				
		TL-3	MASH	Temporary 84" mounting height Approved for Roll-up Signs only	<u>WZ-426</u>				
SS621A	Plasticade	TL-3	MASH	Temporary 84" mounting height Approved for Aluminum Signs only	<u>WZ-427</u>				
SSRB800 **	Plasticade	TL-3	MASH	Temporary	<u>WZ-342</u>				
SS300/SS300A **	Plasticade	TL-3	MASH	Temporary	<u>WZ-351</u>				
SS310/SS310A **	Plasticade	TL-3	MASH	Temporary	<u>WZ-352</u>				
SS340A **	Plasticade	TL-3	MASH	Temporary	<u>WZ-353</u>				
SS420A **	Plasticade	TL-3	MASH	Temporary	<u>WZ-355</u>				
MDI 4860M-LT	MDI Worldwide	TL-3	MASH	Temporary Approved for Roll-Up Signs only	<u>WZ-357</u>				
Twin Flex STF1008	Dicke Safety	TL-3	MASH	Temporary 60" mounting height Approved for Roll-Up Signs only	<u>WZ-434</u>				
Twin Flex TF60-84	Dicke Safety	TL-3	MASH	Temporary 60" or 84" mounting height Approved for Roll-Up Signs only	N/A				
Twin Flex TF84	Dicke Safety	TL-3	MASH	Temporary 84" mounting height Approved for Roll-Up and Aluminum Signs	N/A				
Apex Recoil Max	Eastern Metal	TL-3	MASH	Temporary 60" mounting height Approved for Roll-Up Signs only	<u>WZ-438</u>				

### **Delaware Department of Transportation Approved Products List Temporary Sign Stands** Testing Product Manufacturer **Test Level Application FHWA Eligibility Code** Criteria Name DelDOT Standard Item No. 810001 - NCHRP-350 Compliant Devices<sup>2</sup> SZ-460-2S NCHRP-350 **BONE SAFETY SIGNS** WZ-275 **Temporary** SZ-484-2S TF60 **DICKE TOOL COMPANY** NCHRP-350 TL-3 **Temporary** WZ-141 TF84-7 **EASTERN METAL /** X-561 TL-3 NCHRP-350 WZ-56 **Temporary USA SIGN** EASTERN METAL / X-602 TL-3 NCHRP-350 WZ-78A **Temporary USA SIGN** SS548E; SS548AE; SS548AEE SS548CE; SS548CAE **KORMAN SIGNS,** NCHRP-350 TL-3 SS548EE **Temporary** WZ-100 INC. SS560AE; SS560AEE SS560E; SS560EE **SS560 KORMAN SIGNS,** TL-3 NCHRP-350 **Temporary** WZ-29 SS560A INC MARKETING DISPLAYS INTERNATIONAL 4850RBK NCHRP-350 **Temporary** WZ-28 TRAFFIC CONTROL **PRODUCTS MARKETING DISPLAYS** INTERNATIONAL 4860K TL-3 NCHRP-350 WZ-69 **Temporary** TRAFFIC CONTROL **PRODUCTS MARKETING DISPLAYS** 4884K INTERNATIONAL NCHRP-350 TL-3 **Temporary** WZ-138 4884KET TRAFFIC CONTROL **PRODUCTS BIG BUSTER** TRAFFIX DEVICES, **PORTABLE** TL-3 NCHRP-350 **Temporary** WZ-46 INC. **SIGN STAND SUPER BUSTER** TRAFFIX DEVICES, NCHRP-350 **PORTABLE** TL-3 **Temporary** WZ-234 INC. **SIGN STAND**

### **NOTES:**

NCHRP-350

**Temporary** 

WZ-69

TL-3

2. DelDOT's sunset date for NCHRP 350 tested Temporary Sign Stands is January 1, 2025. Contracts that are Advertised on or after January 1, 2025 shall be required to have MASH tested Temporary Sign Stands.

NCHRP 350 Device Sunset Date Memorandum

4860K

MDI

<sup>1.</sup> Temporary sign stands placed on Delaware roadways shall have a minimum mounting height of 5 feet (60 inches) from the bottom of the sign to roadway. Signs not meeting this height requirement will not be found on the Approved Products List (APL) and will not be accepted nor considered for use. Futhermore, temporary sign stands shall only be used for a maximum of 72 hours (3 days). The only exceptions provided for are documented utility conflicts and instances where ground mounting will be improbable or impossible based on the type of surface a ground mounted post would need to be driven. In cases of utility conflicts, contractor must provide in writing, with supporting documentation, the nature of the conflict and present to the Delaware Department of Transportation's Project Engineer and Safety Officer, as well as the lead inspector for the contract.

<sup>\*\*</sup> For survey crew use only

# Delaware Department of Transportation Approved Products List Type III Barricades

Product			Tosting					
Name	Manufacturer	Test Level	Testing Criteria	Application	FHWA Eligibility Code			
DelDOT Standard Item No. 813001 - MASH Compliant Devices								
Power Post Type III Barricade	PLASTICADE	TL-3	MASH	Temporary	<u>WZ-327</u>			
Anchor Mast Type III Barricade	PLASTIC SAFETY SYSTEMS, INC.	TL-3	MASH	Temporary	<u>WZ-389</u>			
Sentinel TYPE III Barricade	PLASTICADE PRODUCTS	TL-3	MASH	Temporary	<u>WZ-302</u>			
Product Name	Manufacturer	Test Level	Testing Criteria	Application	FHWA Eligibility Code			
DelDOT Stan	dard Item No. 813	3001 - NO	HRP-350 Co	mpliant D	evices <sup>1</sup>			
T3B TYPE III Barricade	DAVIDSON PLASTICS CORPORATION		NCHRP-350	Temporary	<u>WZ-39</u>			
IRS TYPE III Barricade	IMPACT RECOVERY SYSTEMS, INC.	TL-3	NCHRP-350	Temporary	<u>WZ-110</u>			
WBT3-BR TYPE III Barricade	KORMAN SIGNS, INC.	TL-3	NCHRP-350	Temporary	WZ-100 # 3			
WBT3-BRH TYPE III Barricade					<u>WZ-100</u>			
WBT3-SW TYPE III  Barricade  WBT3-SWH TYPE III					WZ-100 # 3			
Barricade								
Portable TYPE III Barricade	PLASTICADE PRODUCTS	TL-3	NCHRP-350	Temporary	<u>WZ-11</u>			
Angle Iron Portable TYPE III Barricade Telespar Portable TYPE III Barricade					<u>WZ-54</u>			
PST-111 TYPE III Barricade	PLASTIC SAFETY SYSTEMS, INC.	TL-3	NCHRP-350	Temporary	<u>WZ-61</u>			
ANCHOR BARRICADE PST-111 TYPE III Barricade					<u>WZ-152</u>			
Sentinel TYPE III Barricade	PMG LIMITED	TL-3	NCHRP-350	Temporary	<u>WZ-104</u>			
TD2400 TYPE III Barricade	THREE D TRAFFIC WORKS, INC.	TL-3	NCHRP-350	Temporary	<u>WZ-217</u>			
TD2400 TYPE III Barricade					<u>WZ-132</u>			
TD2600 TYPE III Barricade TD2650 TYPE III Barricade	THREE D TRAFFIC WORKS, INC.	TL-3	NCHRP-350	Temporary	<u>WZ-128</u>			

### NOTES:

NCHRP 350 Device Sunset Date Memorandum

<sup>1.</sup> DelDOT's sunset date for NCHRP 350 tested Type III Barricades is January 1, 2025. Contracts that are Advertised on or after January 1, 2025 shall be required to have MASH tested Type III Barricades.

### **Delaware Department of Transportation Approved Products List TTC Permanent Sign Stands Testing FHWA Eligibility Product** Manufacturer **Test Level** Application Name Criteria<sup>1</sup> Code DelDOT Standard Item No. 810001 - NCHRP 350 Compliant Devices<sup>2</sup> **UNITED RENTALS NCHRP 350 Permanent** WZ-74 \* **H-BASED** TL-2 **PENNDOT NCHRP 350 Permanent** WZ-266 \* **X-BASED** TL-2 Marion Steel Co. TL-3 **NCHRP 350** Permanent SS-57A **U-Channel Chicago Heights** TL-3 **NCHRP 350 Permanent SS-54 Posts** Steel **Franklin** TL-3 **NCHRP 350 Permanent SS-67 Industries Chicago Heights** TL-3 **NCHRP 350 Permanent** SS-59A Steel **U-Channel Bar Marion Steel Co. SS-56** TL-3 **NCHRP 350 Permanent Spacer** Franklin TL-3 **NCHRP 350 Permanent SS-09 Industries Allied Tube and PSST** TL-3 **NCHRP 350 Permanent SS-03 Conduit Corp**

### **NOTES:**

**NCHRP 350 Device Sunset Date Memorandum** 

<sup>\*</sup> These temporary stands are only used when utility conflict exists OR material exists that prevents ground installation such as concrete; hot mix; brick. All conflicts must be verified and documented by Engineer.

<sup>1.</sup> DelDOT's sunset date for NCHRP 350 tested permanent sign mounts is January 1, 2025. Contracts that are Advertised on or after January 1, 2025 shall be required to have MASH tested permanent sign mounts.

<sup>2.</sup> NCHRP 350 devices under this category can continue to be used when specified on projects until a MASH-compliant alternative is available.

### **Delaware Department of Transportation Approved Products List Truck/Trailer Mounted Attenuators FHWA Testing Support Vehicle Product** Manufacturer **Test Level Application** Eligibility Weight Name Criteria<sup>2</sup> Code DelDOT Standard Item No. 808002 - MASH Compliant Devices TTMA-200 TL-3 MASH 10,000 lbs. MIN CC-152 Gregory Trailer SS180M TMA TL-3 MASH Truck Mounted 13,500 lbs. MIN CC-159 Valtir, Inc. (Trinity) **SMT** TL-3 MASH Trailer 12,000 lbs. MIN CC-160 12,183 lbs. MIN Vorteg M Trailer TMA TL-3 MASH Trailer CC-172 Truck Mounted MASH TrafFix Scorpion II TL-3 MASH 15,000 lbs. MIN CC-132 Scorpion II Trailer TrafFix Devices, Inc. TL-3 MASH Trailer 12,000 lbs. MIN CC-138 Attenuator Verdegro Holding BV TL-3 MASH 16,010 lbs. MIN CC-136 Verdegro BLADE TMA Truck Mounted **FHWA Testing Product Support Vehicle** Manufacturer **Test Level** Application Eligibility Name Criteria<sup>2</sup> Weight Code DelDOT Standard Item No. 808002 - NCHRP 350 Compliant Devices Vorteg Trailer TMA with TL-3 **NCHRP 350** Trailer 9,920 lbs. MIN CC-104A **Integral Arrowboard** Valtir, Inc. (EASI) Alpha 100K TMA @ TL-3 TL-3 NCHRP 350 **Truck Mounted** 16,090 lbs. MIN **CC-39** TL-3 U-Mad TMA with 19,000 lbs. MIN **Barrier Systems** TL-3 **NCHRP 350 Truck Mounted** CC-103A 20,000 lbs. MAX **Sign Board U-MAD Trailer Mounted** 18,850 lbs. MIN **Impact Absorption** TL-3 **NCHRP 350 Trailer** CC-99 **Attenuator** 20,830 lbs. MAX TL-3 **NCHRP 350 Trailer TMA-100 Trailer** 19,840 lbs. MIN **CC-90A** Gregory Safe-Stop 180 Trailer TL-3 **NCHRP 350 Trailer** 19,000 lbs. MIN CC-78D **TMA** Valtir, Inc. (Trinity) Safe-Stop 180 TMA TL-3 **NCHRP 350 Truck Mounted** 19,000 lbs. MIN CC-78A MPS 350 TMA @ TL-3 **NCHRP 350 Truck Mounted** 15,000 lbs. MIN CC-34B TL-3 **Scorpion Attenuator** TL-3 **NCHRP 350** 10,000 lbs. MIN **Trailer** CC-65B **Trailer** TrafFix Devices, Inc. TMA Scorpion C 10,000 TL-3 **NCHRP 350 Truck Mounted** 19,840 lbs. MIN **CC-65** Model C and Model C-90

### NOTES:

U-MAD 100 K Truck

**Mounted Attenuator** 

**NCHRP 350** 

Truck Mounted 18,988 lbs. MAX

CC-64

TL-3

**NCHRP 350 Device Sunset Date Memorandum** 

Albert W. Unrath, Inc.

<sup>1.</sup> Truck/Trailer Mounted Attenuators not listed above sholl not be used on any DelDOT construction or mainteance contract without prior written approval from the DelDOT Safety Programs Manager, who is responsible for the above Approved Products List (APL).

<sup>2.</sup> DelDOT's sunset date for NCHRP 350 tested Truck/Trailer Mounted Attenuators is <u>January 1, 2030</u>. Contracts that are Advertised on or after January 1, 2030 shall be required to have MASH tested Truck/Trailer Mounted Attenuators.

### Delaware Department of Transportation Approved Products List Pedestrian Channelizing Barricade

Product Name	Manufacturer	Test Level	Testing Criteria	Application	FHWA Eligibility Code			
DelDOT Standard Item No. 813002								
Safety Rail ADA Compliant Pedestrian Barricade	PLASTIC SAFETY SYSTEMS, INC.	TL-3	MASH	Temporary	<u>WZ-359</u>			
Safety Wall ADA Compliant Pedestrian Barricade	PLASTIC SAFETY SYSTEMS, INC.	TL-3	MASH	Temporary	<u>WZ-315</u>			
Patchade ADA Compliant Pedestrian Barricade	Plasticade	TL-3	MASH	Temporary	<u>WZ-428</u>			

### DelDOT Asphalt Release Agent Acceptance Program

The Department maintains an approved products list for asphalt release material to be used on all Department contracts and Department issued permits or agreements. Producers that wish to be added to the Department's approved products list are to contact the Materials and Research section at DOT APL@Delaware.gov. The producer will be required to provide the Department the material's AASHTO Product Evaluation and Audit Solutions (PEAS) code for the Department to verify its suitability. Producers are to furnish samples to the Department upon request when the Department determines that a sample is needed for additional material testing and verification. All samples submitted to the Department must be accompanied with a producer signed certificate of analysis.

The Department, at its sole discretion, will determine whether the material should be placed on the Department's approved products list. The Department will continuously evaluate approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list. Producers are to alert the Department as additional AASHTO PEAs testing data becomes available.

### DelDOT Concrete Admixtures Acceptance Program

The Department maintains an approved products list for concrete admixtures available for use in cast-in-place and precast concrete applications. Producers that wish to be added to the Department's approved products list are to contact the Materials and Research section at <a href="DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a>. The producer will be required to provide the Department the following information with their initial submittal:

- The material's AASHTO Product Evaluation and Audit Solutions (PEAS) code,
- The admixture type which the producer is seeking approved product status, and
- Evidence that a DelDOT approved concrete producer has interest in performing trail batches with the concrete admixture.

After an initial evaluation, the Department may request additional certified test results or for the producer to furnish samples to the Department. All samples submitted to the Department must be accompanied with a producer signed certificate of analysis. The Department, at its sole discretion, will determine whether the material should be placed on the Department's approved products list. The Department will continuously evaluate approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list. Producers are to alert the Department as additional AASHTO PEAs testing data becomes available and when changes occur to the material formulation or manufacturing process.

# DelDOT Concrete Curing Compound Acceptance Program

The Department maintains an approved products list for concrete curing compound to be used on all Department contracts and Department issued permits or agreements. Producers that wish to be added to the Department's approved products list are to contact the Materials and Research section at <a href="DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a>. The producer will be required to provide the Department certified test results for tests listed in Table 1 performed by an accredited laboratory. Producers are to furnish samples to the Department upon request when the Department determines that a sample is needed for additional material testing and verification. All samples submitted to the Department must be accompanied with a producer signed certificate of analysis.

Table 1: Concrete Curing Compound Certificate of Analysis Submittal Information

TEST	METHOD
Moisture Loss @ 72 hrs.	AASHTO T155
Deleterious Reaction with Concrete	ASTM C309
Reflectance (using CIE D65/2°)	ASTM E1347
Drying Time (hrs.: min.)	ASTM C309
Density, lbs/gal	ASTM D1475

The Department, at its sole discretion, will determine whether the material should be placed on the Department's approved products list. The Department will continuously evaluate approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list. Producers are to alert the Department of formulation or manufacturing process changes.

## DelDOT Highway Safety Hardware and Temporary Traffic Control Devices Acceptance Program

The Department maintains several approved product lists for highway safety hardware and temporary traffic control devices to be used on all Department contracts and Department issued permits or agreements. Specific approved product lists maintained include the following:

- · Guardrail end treatments,
- Permanent impact attenuators,
- Guardrail hardware, and
- Temporary traffic control devices which includes:
  - o Temporary impact attenuators and sand crash cushion arrays,
  - Truck/ trailer mounted attenuators,
  - o Temporary sign stands,
  - Type III barricades, and
  - Temporary safety barrier.

DelDOT's MASH Committee, comprised of representatives from across the Department with expertise in roadside design, roadside safety hardware, and temporary traffic control, is responsible for maintaining the approved product lists. Vendors that wish to be added to the Department's approved products lists are to complete the Department's <u>Approved Product List Application</u> and submit the application and the necessary attachments as instructed within the application. The Department reserves the right to request additional testing and will not purchase new product materials for laboratory testing or field evaluations. The Department will only accept third party test data that was performed in the United States in accordance with FHWA requirements. Submitters should be aware of DelDOT's <u>NCHRP-350 Sunset Dates Memo</u> and DelDOT's associated crashworthiness policy.

At a minimum, to be considered eligible for a Department approved product list, the device or product must meet the following requirements:

- 1. Devices must be crashworthy in accordance with the latest edition of the Manual for Assessing Safety Hardware (MASH) published by the American Association of State Highway Transportation Officials (AASHTO). Exception to this requirement is provided for trailer mounted temporary traffic control devices (Portable Changeable Message Signs, Arrow Board trailers, Temporary Traffic Signal Trailers, Portable Camera Trailers, Portable Detection Trailers, Portable Speed Display Trailers, etc.).
- 2. Devices must meet the requirements of the latest edition of DelDOT's Standard Specifications.

The Department, at its sole discretion, will determine whether the product should be placed on the Department's approved products list. Any materials or products evaluated and rejected are not eligible for resubmission within six months of the most recent evaluation unless specifically requested by the Department.

Once approved, vendors will be required to perform the following to retain approval status:

- Approved products are required to continue to meet the requirements of the latest edition of DelDOT's Standard Specifications.
- Immediately inform the Department of any changes in the composition of the product. The Department will review the changes and may request samples or other support documentation like crash test reports or catalog cuts be submitted to assist in the Department's review.

• Vendors are required to recertify their products every 5 years to remain on the approved product list beginning January 2023. If the product has not changed, submit a certified letter on manufacturer's letterhead stating that the product has not changed.

The Department will continuously evaluate approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list.

## Hot Applied Joint and Crack Sealant Acceptance Program

The Department maintains an approved products list for hot applied joint and crack sealant materials to be used on all Department contracts and Department issued permits or agreements. Producers that wish to be added to the Department's approved products list are to contact the Materials and Research section at <a href="DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a>. The producer will be required to provide the Department the material's AASHTO Product Evaluation and Audit Solutions (PEAS) code for the Department to verify its suitability. Products that have not been submitted to, tested by, and evaluated by AASHTO PEAS are to provide certified test results for the tests listed in Table 1 performed by an accredited laboratory for the material being submitted for approval. Producers are to furnish samples to the Department upon request when the Department determines that a sample is needed for additional material testing and verification. All samples submitted to the Department must be accompanied with a producer signed certificate of analysis.

Table 1: Certificate of Analysis Submittal Information

TESTS	METHOD
Cone Penetration at 77° F	ASTM D5329
Cone Penetration at 40° F	ASTM D5329
Softening Point, °F	ASTM D36
Bond, Non-immersed, -20° F	ASTM D5329
Bond, Water immersed, -20° F	ASTM D5329
Resilience at 77° F	ASTM D5329
Asphalt Compatibility	ASTM D5329
Apparent Viscosity at Maximum heating Temperature, °F	AASHTO TP 85

The Department, at its sole discretion, will determine whether the material should be placed on the Department's approved products list. The Department will continuously evaluate approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list. Producers are to alert the Department as additional AASHTO PEAs testing data becomes available and when changes occur to the material formulation or manufacturing process.

# Pavement Marking Material Acceptance Program

# **Pavement Markings**

The Department maintains an approved products list for pavement marking to be used on all Department contracts and Department issued permits or agreements. Producers that wish to be added to the Department's approved products list are to contact the Materials and Research section at <a href="DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a>. The producer will be required to provide the Department the material's AASHTO Product Evaluation and Audit Solutions (PEAS) code for the Department to verify its suitability. It is the Department's preference, that the submitted material have at least 3-years of test data available on a northern test track. Producers are to furnish samples to the Department upon request when the Department determines that a sample is needed for additional material testing and verification. All samples submitted to the Department must be accompanied with a producer signed certificate of analysis.

If the Department determines that the material is acceptable, the Department will provisionally apply the material for a trial period that will include at least one winter. The Department, at its sole discretion, will determine whether the material should be placed on the Department's approved products list. The Department will continuously evaluate approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list. Producers are to alert the Department as additional AASHTO PEAs testing data becomes available and when changes occur to the material formulation or manufacturing process.

Department quality assurance inspectors will test all newly placed pavement markings to assure contract compliance. The retroreflectometer readings will be taken within 1 to 3 weeks after striping is complete. The Materials and Research section will perform the retroreflectivity testing under dry conditions and typically during daytime hours; however, when required, the Materials and Research section will coordinate with the construction inspection staff for applications where nighttime testing is required because daytime testing is not feasible.

## Snowplowable Recessed/ Raised Pavement Markers

The Department maintains an approved products list for snowplowable raised pavement markers to be used on all Department contracts and Department issued permits or agreements. Producers that wish to be added to the Department's approved products list are to contact the Materials and Research section at <a href="mailto:DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a>. The producer will be required to provide the Department the material's AASHTO Product Evaluation and Audit Solutions (PEAS) code for the Department to verify its suitability. Producers are to furnish samples to the Department upon request when the Department determines that a sample is needed for additional testing and verification.

If the Department determines that the material is acceptable, the Department will provisionally apply the material for a trial period that will include at least one winter. The Department, at its sole discretion, will determine whether the material should be placed on the Department's approved products list. The Department will continuously evaluate approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list. Producers are to alert the Department as additional AASHTO PEAs testing data becomes available and when changes occur to the material formulation or manufacturing process.

# Pavement Marking Glass Beads

The Department maintains an approved products list for pavement marking glass beads to be used on all Department contracts and Department issued permits or agreements. Producers that wish to be added to the Department's approved products list are to contact the Materials and Research section at <a href="mailto:DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a>. Producers will be required to submit a product technical data sheet verifying compliance with the Department's specifications and signed certificate of analysis. Producers are to furnish samples to the Department upon request when the Department determines that a sample is needed for additional testing and verification.

The Department, at its sole discretion, will determine whether the material should be placed on the Department's approved products list. The Department will continuously evaluate approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list. Producers are to alert the Department when changes occur to the material formulation or manufacturing process.

# Preformed Flexible Joint Sealants Acceptance Program

The Department maintains an approved products list for preformed flexible joint sealants for precast concrete applications to be used on all Department contracts and Department issued permits or agreements. Producers that wish to be added to the Department's approved products list are to contact the Materials and Research section at <a href="DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a>. The producer will be required to provide the Department certified test results for the tests listed in Table 1 performed by an accredited laboratory. Producers are to furnish samples to the Department upon request when the Department determines that a sample is needed for additional material testing and verification. All samples submitted to the Department must be accompanied with a producer signed certificate of analysis.

Table 1: Preformed Flexible Joint Sealants Certificate of Analysis Submittal Information

Test	Method
Bitumen Content (bitumen products)	ASTM D4
Rubber Product Chemical Analysis (butyl rubber products)	ASTM D297
Ash-Inert Mineral Matter	ASTM D6/ D6M
Specific Gravity	ASTM D71
Ductility	ASTM D113/ D113M
Softening Point	ASTM D36/ D36M
Penetration	ASTM D217
Flash Point and Fire Point	ASTM D92
Chemical Resistance	ASTM C990/ C990M
Compression-Recovery of Tape Sealant	ASTM C972
Joint Performance Requirements	ASTM C990/ C990M

The Department, at its sole discretion, will determine whether the material should be placed on the Department's approved products list. The Department will continuously evaluate approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list. Producers are to alert the Department of formulation or manufacturing process changes.

## DelDOT Sign Panel Acceptance Program

The Department maintains an approved suppliers list for all sign panel material to be used on all Department contracts and Department issued permits or agreements. Suppliers that wish to be added to the Department's approved suppliers list are to contact the Materials and Research section at <a href="DOT APL@Delaware.gov">DOT APL@Delaware.gov</a>. The supplier must submit the following information to the Department to process the request:

- Location and address of each facility to be qualified,
- Contact information including name, phone number and e-mail address for a designated supplier point of contact,
- Material sources with certifications, and
- Fabrication methods.

Once the Department has reviewed and accepted the information submitted by the fabricator, the Department will conduct an on-site plant inspection and quality control audit. Fabricators found to be in compliance with the requirements of the Department's specifications and with this acceptance program will be issued a letter of qualification to become a certified supplier and will be added to the Department's list of approved suppliers. The checklist that the Department will use to conduct the initial on-site inspection and future quality control audits can be found at <a href="this location">this location</a>. The Department, at its sole discretion, will determine certification in cases where full compliance is not met during the on-site inspection.

All Department sign panel suppliers must utilize reflective sheeting material in accordance with Table 1 and as prescribed in the contract.

Table 1: Reflective Sheeting Requirements

Grade	Manufacturer	Product Name
Type IV	3M	High Intensity Prismatic Reflective Sheeting 3930 Series
	Nippon Carbide	Nikkalite High Intensity Micro-prismatic 94000 Series
	Avery Dennison	T-6000 HIP Series
	Orafol	5900 High Intensity Prismatic Grade
Type IX	3M	Diamond Grade VIP Reflective Sheeting 3990 Series
	3M	Diamond Grade VIP Fluorescent Reflective Sheeting 3980 Series
	Avery Dennison	Omniview T-9000 Series
	Orafol	Oralite 7900 Wide Observation Angle Prismatic
Type XI Ave	3M	Diamond Grade DG <sup>3</sup> Reflective Sheeting 4090 Series
	3M	Diamond Grade DG <sup>3</sup> Fluorescent Reflective Sheeting Series 4080
	Orafol	Oralite 9900 Type XI Brilliant Grade Premium
	Avery Dennison	OmniCube T-11000 Series

All component materials (Reflective sheeting, Vinyl and UV protective sheeting when digitally printing) shall be matched to the manufacturer of the reflective sheeting. The sign fabricator of Digital Printed signs must be certified by the reflective sheeting manufacturer as required in ATSSA Digitally Printed Traffic Sign Guide.

The Department will perform audits of its approved suppliers on a periodic basis to assess an approved supplier's performance. Suppliers must maintain adequate field performance and remain in compliance

with the Department's specifications and with the requirements of this acceptance program to maintain status as an approved sign panel supplier.

## DelDOT Silane-Based Concrete Sealer Acceptance Program

The Department maintains an approved products list for silane-based concrete sealers to be used on all Department contracts and Department issued permits or agreements. Producers that wish to be added to the Department's approved products list are to contact the Materials and Research section at DOT APL@Delaware.gov. The producer will be required to provide the Department with certified test results for tests listed in Table 1 performed by an accredited laboratory. Producers are to furnish samples to the Department upon request when the Department determines that a sample is needed for additional material testing and verification. All samples submitted to the Department must be accompanied by a producer signed certificate of analysis.

Table 1: Silane-Based Concrete Sealer Certificate of Analysis Submittal Information

TEST	METHOD	
Moisture Vapor Transmission	ASTM D1653	
Absorbed Chloride	NCHRP 244 Series IV Southern Exposure	
Water Absorption	NCHRP 244 Series II	
Depth of Penetration	OHD L-40	
Total Solids Content	ASTM D5095	

The Department, at its sole discretion, will determine whether the material should be placed on the Department's approved products list. The Department will continuously evaluate the approved product list material field performance and will determine, at its sole discretion, whether products should be removed or temporarily suspended from the approved products list. Producers are to alert the Department of formulation or manufacturing process changes.

## DelDOT Emulsified Asphalt Tack Coat Acceptance Program

The Department maintains both an approved tack coat manufacturers list and an approved tack coat suppliers list. For purposes of this document, a tack coat manufacturer is defined as the entity that produces the final tack coat material (i.e. a refinery or terminal), and a tack coat supplier is defined as the entity whose tank is used to fill up the tack truck that is used at the project site. Suppliers include but are not limited to hot-mix plants and manufacturer owned holding tanks which are used to fill up the tack truck that is used at the project site. All Department contracts and Department issued permits or agreements shall use material that is supplied through an approved tack coat supplier. All tack coat suppliers shall use material that is manufactured by a Department approved tack coat manufacturer.

The tack coat manufacturer and tack coat supplier are responsible for providing material that meets all necessary contract requirements and guidelines contained within this acceptance program. The Department will perform quality assurance inspection, testing, and oversight as specified in this program to ensure compliance with all Department requirements and specifications. The Department reserves the right to conduct additional quality assurance inspections and tests at its sole discretion when quality issues are discovered in the field. The Department will work with qualified manufacturers and suppliers to resolve discovered quality issues but reserves the right, at its sole discretion, to suspend any manufacturer's and/or supplier's approvals for non-compliance reasons.

## Tack Coat Manufacturer Acceptance Program

#### Qualification Requirements

Emulsified asphalt manufacturers that wish to become a Department approved manufacturer must submit a request to the Materials and Research section at <a href="DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a> for each facility in which qualification is requested. The requestor must submit the following information to the Department to process the request:

- Location and address of each facility to be qualified,
- Contact information for each facility's General Manager and each facility's assigned Quality Control contact person with phone numbers and e-mail addresses,
- Emulsified asphalt grades in which Department approval is requested,
- Initial series of test data for each emulsified asphalt grade in which Department approval is requested,
- Current DelDOT emergency contact information including phone number and e-mail address,
- Any pertinent industry certifications or accreditations, and
- Quality control plan that complies with this program for each facility in which qualification is requested.

Once the Department has reviewed and accepted the information submitted by the manufacturer, the Department may elect to conduct an on-site inspection and quality control audit. The Department may additionally collect samples during the on-site inspection and perform compliance testing. Facilities that are found to be in compliance with the requirements of this program will be issued a letter of qualification to become an approved manufacturer for specific grades of emulsified asphalts and will be added to the Department's approved manufacturers list. The Department, at its sole discretion, will determine certification in cases where full compliance is not met during the on-site inspection.

#### Quality Control Plan Requirements

Department approved emulsified asphalt manufacturers are required to maintain a quality control plan that meets the requirements of this section for each production facility. Quality control plans must be updated and submitted to the Department annually, and when quality control personnel or procedural changes in the facility occur. The quality control plan is to include the following information at minimum:

- Facility location;
- Name, telephone number, and email address of the person responsible for quality control at the facility;
- The quality control tests to be performed on each emulsified asphalt grade produced;
- Name and location of all qualified laboratories performing the quality control tests prescribed in the quality control plan;
- A description of the method and frequency for initial testing, quality control testing, and specification compliance testing;
- A statement indicating that a supplier will prepare a monthly summary report for all quality control
  and specification compliance tests performed and that the supplier will submit these statements
  as requested; and
- A diagram and/or aerial photo of the facility displaying the layout of tanks and their associated identification numbers.
- An outline of procedures to be followed for checking emulsified asphalt transport vehicles prior to loading to prevent contamination of shipments.

#### **Operating Requirements**

The following operating requirements must be met in order to maintain status as an approved tack coat manufacturer:

- A quality control plan must be submitted to the Department annually and when quality control personnel or procedural changes in the facility occur.
- A certification of analysis must be sent electronically to the Department for each product made and shipped to DelDOT projects for each tank and lot produced. The certificate of analysis must include the facility from where the material originated as well as the tank and lot/batch number for the product.
- All pertinent quality control records including equipment calibration records, shipping records, inspection reports, and testing results are to be retained and made available to the Department upon request.
- The manufacturer's approved quality control plan must be followed.

Non-compliance with this program, the manufacturer's quality control plan, or the Department's specifications is cause for revocation of approval.

#### DelDOT Quality Assurance

The Department will review an approved manufacturer's on-file information annually to verify compliance with the Department's acceptance program. The Department may request additional manufacturer information if the Department determines the on-file information is insufficient or if the on-file information is no longer current. The Department reserves the right to perform material sampling and testing as needed to ensure quality and material compliance. When requested, samples must be submitted with a certificate of analysis.

## Tack Coat Supplier Acceptance Program

### Qualification Requirements

Tack coat suppliers that wish to become Department approved suppliers must submit a request to the Materials and Research section at <a href="DOT\_APL@Delaware.gov">DOT\_APL@Delaware.gov</a> for qualification. The requestor must submit the following information to the Department to process the request:

- Location and address of each tack coat tank to be qualified.
- Contact information for the designated tank manager with phone number and e-mail address.
- Identification of the approved tack coat manufacturer providing the supplier's material and associated emulsified asphalt grade in which Department approval is requested.

Once the Department has reviewed and accepted the information submitted by the supplier, the Department may elect to conduct an on-site inspection and quality control audit. The Department may additionally collect samples during the on-site inspection and perform compliance testing. Facilities that are found to be in compliance with the requirements of this program will be issued a letter of qualification to become an approved supplier for specific grades of emulsified asphalts and will be added to the Department's approved suppliers list. The Department, at its sole discretion, will determine certification in cases where full compliance is not met during the on-site inspection.

#### **Operating Requirements**

The following operating requirements must be met in order to maintain status as an approved tack coat supplier:

- Make no modifications to the approved tack coat manufacturer's material. A supplier that makes a modification to the material will be considered a tack coat manufacturer and will be subject to the requirements within the Tack Coat Manufacturer Acceptance Program.
- Store the tack coat material according to the manufacturer's recommendations.
- Provide a bill of lading for each shipment which includes the facility from where the material originated as well as the tank and lot/batch number for the product.

Non-compliance with this program or the Department's specifications is cause for revocation of approval.

#### DelDOT Quality Assurance

The Department will collect a sample of the approved tack coat supplier's material once a month and will randomly test samples collected for specification compliance. The Department reserves the right to perform additional sampling and testing as material quality issues are discovered. Tested samples that fail to meet the Department's specifications will be resampled and retested with notification sent to the supplier. A second failing test will result in the revocation of the supplier's approval status until a passing test is obtained.