

INTRODUCTION TO MARYLAND'S SHA/OMT'S QUALIFIED LISTS PACKAGE

These lists are issued to provide sources of materials qualified by the Central Northern Regional Laboratory for use on Maryland State Highway Projects. It is intended primarily as a reference for source of supply approval and does not imply that materials can be used on Maryland SHA projects without regard for normal quality assurance testing and procedures.

Each type of material listed herein has undergone a prescribed procedure for submitting, testing and approval. These procedures are available to product manufacturers upon request.

When a product is approved, it will be added to the appropriate list. Distribution will be made to parties concerned. When you receive an updated list, please discard the old one.

Questions concerning this list should be directed to Stuart E. Jones, Qualified Materials Representative. I can be reached at 443-572-5025 or faxed at 410-787-0483.

LIST OF QUALIFIED ADMIXTURES FOR CONCRETE	4
AIR ENTRAINING AGENTS	4
CHEMICAL ADMIXTURES	4
TYPE A – WATER REDUCING	4
TYPE C - ACCELERATING, NON CHLORIDE	5
TYPE C - ACCELERATING, NON CHLORIDE MIX 6 (PATCHING MIX) ONLY	5
TYPE C - ACCELERATING, CHLORIDE *	5
TYPE D - WATER REDUCING AND RETARDING	5
TYPE F - WATER REDUCING HIGH RANGE	6
TYPE G – WATER REDUCING HIGH RANGE AND RETARDING	6
ADMIXTURES – PRECAST	6
LIST OF QUALIFIED ASPHALT RELEASE AGENTS	7
LIST OF QUALIFIED EPOXY COATINGS FOR DEFORMED STEEL REINFORCING BARS	9
LIST OF QUALIFIED FORM RELEASE COMPOUNDS	10
LIST OF QUALIFIED STYRENE-BUTADIENE LATEX EMULSION ADMIXTURES FOR PCC	11
LIST OF QUALIFIED RAPID HARDENING CEMENTITIOUS MATERIAL	12
LIST OF QUALIFIED WHITE PIGMENTED CURING COMPOUNDS	14
LIST OF QUALIFIED EMULSION COLD APPLIED DAMP PROOFING AGENTS	15
LIST OF QUALIFIED NON-SHRINK CEMENTITIOUS GROUT	16
LIST OF QUALIFIED CLEAR OR TRANSLUCENT CURING COMPOUNDS	17
LIST OF QUALIFIED CURE & SEAL COMPOUNDS FOR “ARCHITECTURAL COLORED CONCRETE”	17
LIST OF QUALIFIED LOOP SEALANTS	18
LIST OF QUALIFIED SOIL STABILIZATION MATTING MANUFACTURERS (2001 SPEC)	18
TYPE A SOIL STABILIZATION MATTING FOR CHANNELS VELOCITY LESS THAN 5 F.P.S.	18
SLOPES OF 3:1 OR FLATTER	19
SLOPES STEEPER THAN 3:1	20
TYPE B SOIL STABILIZATION MATTING FOR CHANNELS	21
VELOCITY 5.0 - 8.5 F.P.S.	21
LIST OF QUALIFIED SOIL STABILIZATION MATTING MANUFACTURERS (2008 SPEC)	22
TYPE A SOIL STABILIZATION MATTING	22
TYPE B SOIL STABILIZATION MATTING	22
TYPE C SOIL STABILIZATION MATTING	22
TYPE D SOIL STABILIZATION MATTING	23
LIST OF QUALIFIED CONCRETE STAINS FOR NOISE BARRIERS	24
QUALIFIED CONCRETE STAINS FOR ARCHITECTURAL FINISHES	25
QUALIFIED HOT AND COLD APPLIED JOINT SEALANTS	27
HOT APPLIED JOINT SEALANTS	27
COLD APPLIED JOINT SEALANTS	27
LIST OF QUALIFIED TACK COAT EMULSION REFINERIES AND PRODUCTS	28
LIST OF MARYLAND COMPOST PRODUCERS (2003)	29
BIOSOLIDS COMPOST (TYPE A)	29
SOURCE-SEPARATED COMPOST (TYPE B)	30
LIST OF QUALIFIED FERTILIZER MANUFACTURERS	31

LIST OF QUALIFIED SOD/SEED PRODUCERS	32
QUALIFIED DETECTABLE WARNING SURFACES.....	33
PAVEMENT MARKING DEFINITAIONS.....	34
DURABLE MATERIALS PROCEDURE	35
<i>SURFACE APPLIED TAPE(DURABLE)</i>	36
NON-DURABLE MATERIALS WATERBORNE PAINT PROCEDURE	37
NON-DURABLE MATERIALS REMOVABLE (TEMPORARY) TAPE PROCEDURE.....	38
DURABLE SNOWPLOWABLE RAISED/RECESSED PAVEMENT MARKERS (RPM) PROCEDURE	39
TO MAINTAIN APPROVAL FOR PAVEMENT MARKINGS	40
QUALIFIED PRODUCTS FOR REMOVABLE (TEMPORARY TAPE) MARKING MATERIAL FOR MAINTENANCE OF TRAFFIC	41
QUALIFIED PRODUCTS FOR PAVEMENT MARKING PAINT NON-TOXIC LEAD-FREE WATERBORNE PAINT	42
QUALIFIED PRODUCTS FOR PERMANENT PREFORMED PAVEMENT MARKING IN-LAID MATERIAL.....	43
QUALIFIED PRODUCTS FOR PERMANENT PREFORMED PAVEMENT MARKING SURFACE APPLIED MATERIAL	44
QUALIFIED PRODUCTS FOR PERMANENT PREFORMED PAVEMENT MARKING CONTRAST TAPE	45
QUALIFIED PRODUCTS FOR LEAD-FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING MATERIALS.....	46
QUALIFIED PRODUCTS FOR PREFORMED THERMOPLASTIC PAVEMENT MARKINGS.....	47
QUALIFIED PRODUCTS FOR EPOXY PAVEMENT MARKING MATERIAL	48
QUALIFIED PRODUCTS FOR SNOW PLOWABLE RAISED PAVEMENT REFLECTOR CASTINGS.....	49

List of Qualified Admixtures for Concrete

AIR ENTRAINING AGENTS

<u>Product I.D.</u>	<u>Producer</u>	<u>Approved dosage in fluid oz. per 100 lbs. of cement</u>	<u>Approval Date</u>
MBVR	BASF ADMIXTURES	¼ - 1 ½	12/10/73
SIKA A.E.A 15	SIKA CHEMICAL CO.	¼ - 1 ½	12/14/73
FX-340	FOX INDUSTRIES	½ - 1 ½	07/14/75
DARAVAIR – M	W.R. GRACE	¼ - 6	04/24/81
MICRO – AIR	BASF ADMIXTURES	¼ - 4	03/11/86
MB AE 90	BASF ADMIXTURES	¼ - 4	02/23/94
DARAVAIR 1000	W.R. GRACE	¾ - 3	06/10/94
DAREX II AEA	W.R. GRACE	½ - 5	12/15/94
CATEXOL AE 260	AXIM CONCRETE TECHNOLOGY	1 – 6	10/21/96
SIKA A.E.R.	SIKA CHEMICAL CO.	0.5 - 1.5	05/22/97
SIKA AIR	SIKA CHEMICAL CO.	0.5 - 3.0	05/19/00
EUCON AIR 40	EUCLID CHEMICAL CO.	0.25 - 1.5	09/18/00
DARAVAIR AT60	W.R. GRACE	¼ - 3.0	06/07/01
AIR PLUS **	FRITZ-PAKS CORPORATION	PER MANUFACTURER'S RECOMMENDATIONS	07/12/01
SUPER AIR PLUS **			
SIKA AEA-14	SIKA CHEMICAL CORP.	½ - 3.0	02/26/02
CHRYSOAIR R2	CHRYSO INC.	0.25 –15.0	10/26/04
DARAVAIR AT-30	W.R. GRACE	¼ - 3.0	11/15/06
AIR MIX 200	EUCLID CHEMICAL CO.	0.5 – 1.0	05/16/08

CHEMICAL ADMIXTURES

TYPE A – WATER REDUCING

PLASTOCRETE 161	SIKA CHEMICAL CO.	3 – 5	10/22/73
EUCON WR 75	EUCLID CHEMICAL CO.	2 – 3	04/03/74
FX – 341 – A	FOX INDUSTRIES	3 – 4	02/01/78
POZZOLITH 322 N	BASF ADMIXTURES	3 – 7	09/13/79
POLYHEED 997	BASF ADMIXTURES	3 – 10	01/21/93
DARACEM – 55	W.R. GRACE	4 – 12	08/01/96
CATEXOL 1000 N	AXIM CONCRETE TECHNOLOGY	2 – 5	10/21/96
CATEXOL 1000 SP-MN	AXIM CONCRETE TECHNOLOGY	12 – 40	05/02/97
WRDA-35	W.R. GRACE	2 – 4	11/14/97
POZZOLITH 200	BASF ADMIXTURES	3 – 4	11/22/99
EUCON HC	EUCLID CHEMICAL CO.	2.5 – 5.0	09/18/00
EUCON NW	EUCLID CHEMICAL CO.	3.0 – 6.0	09/18/00
EUCON X15	EUCLID CHEMICAL CO.	4.0 – 8.0	09/22/00
SIKAMENT MP	SIKA CORPORATION	4.0 – 12.0	04/11/01
CHRYSOPLAST 850	CHRYSO INC.	7.6 – 23.0	10/26/04
VISCOCRETE 2100	SIKA CORPORATION	1.0 – 3.0	02/03/05
GLENIUM 3030NS	BASF ADMIXTURES	2.0 – 6.0	01/31/06
CHRYSOFLUID OPTIMA 203	CHRYSO INC.	2.0 – 5.0	06/21/07
CHRYSOPLAST 500	CHRYSO INC.	3.0 – 8.0	06/21/07
ADVA 140 M	W.R. GRACE	3.0 – 9.0	07/20/07
EXP 950	W.R. GRACE	1.0 – 2.9	06/12/08
WR-91	EUCLID CHEMICAL CO.	3.0 – 6.0	08/11/08
SIKAMENT AFM	SIKA CORPORATION	3.0 – 5.0	08/13/08
GLENIUM 7500	BASF ADMIXTURES	1.75 – 5.0	09/25/08
ADVA 190	W.R. GRACE	1.25 – 3.9	01/13/09

**** Products for Addition of Air on the Jobsite “ONLY”. These are pre-packaged products.**

List of Qualified Admixtures for Concrete

TYPE C - ACCELERATING, NON CHLORIDE

<u>Product I.D.</u>	<u>Producer</u>	<u>Approved dosage in fluid oz. per 100 lbs. Cement</u>	<u>Approval Date</u>
POZZOLITH NC 534	BASF ADMIXTURES	27 – 125	05/01/95
POZZUTEC 20	BASF ADMIXTURES	20 – 60	05/01/95
POLARSET	W.R. GRACE	30 – 60	05/01/95
PLASTOCRETE 161 FL	SIKA CHEMICAL CO.	24 – 64	05/09/95
SIKA RAPID-1	SIKA CHEMICAL CO.	20 – 48	03/27/97
CATEXOL 2000 R.H.E.	AXIM CONCRETE TECHNOLOGY	16 – 64	05/02/97
DARASET 200	W.R. GRACE	30 – 60	05/24/99
LUBRICON NCA	W.R. GRACE	@ 30oz/100wt.	05/24/99
SIKASET NC	SIKA CHEMICAL CO.	30 – 45	03/12/02
POZZUTEC 20+	BASF ADMIXTURES	27 – 60 Subfreezing 60 – 90	08/22/02
ACCELGUARD 80	EUCLID CHEMICAL CO.	60 - 90	06/12/08
DARASET HES	W.R. GRACE	20 - 30	04/24/09

TYPE C - ACCELERATING, NON CHLORIDE

DOSAGE RATES FOR USE IN MIX 9 (PATCHING MIX) ONLY

POZZILITH NC 534	BASF ADMIXTURES	10 – 125	05/01/95
POZZUTEC 20	BASF ADMIXTURES	10 – 60	05/01/95
POLARSET	W.R. GRACE	10 – 60	05/01/95
PLASTOCRETE 161 FL	SIKA CHEMICAL CO.	10 – 64	05/09/95
SIKA RAPID-1	SIKA CHEMICAL CO.	10 - 48	03/27/97
CATEXOL 2000 R.H.E.	AXIM CONCRETE TECHNOLOGY	10 – 64	05/02/97
DARASET 200	W.R. GRACE	12 – 60	05/24/99
LUBRICON NCA	W.R. GRACE	15 – 30	05/24/99
POZZUTEC 20+	BASF ADMIXTURES	10 – 60 Subfreezing 60 – 90	08/22/02
DARASET HES	W.R. GRACE	8 - 30	04/24/09

TYPE C - ACCELERATING, CHLORIDE *

DARACCEL	W.R. GRACE	16 – 60	12/11/95
POZZOLITH 122 HE	BASF ADMIXTURES	17 – 64	12/11/95

TYPE D - WATER REDUCING AND RETARDING

PLASTIMENT	SIKA CHEMICAL CO.	2 – 4	01/22/74
EUCON RETARDER	EUCLID CHEMICAL CO.	3 – 5	03/06/74
DARATARD 17	W.R. GRACE	2 – 6	05/02/74
FX - 343 DP	FOX INDUSTRIES	3 – 4	05/20/77
POZZOLITH 200	BASF ADMIXTURES	4 – 6	09/29/99
POZZOLITH 122 R	BASF ADMIXTURES	3 – 5	03/19/84
DELVO STABILIZER	BASF ADMIXTURES	3 – 12	12/07/93
CATEXOL 1000 R	AXIM CONCRETE TECHNOLOGY	3 – 4	10/21/96
WRDA – 35	W.R. GRACE	4 – 8	11/14/97
POZZOLITH 100XR	BASF ADMIXTURES	2 – 4	03/02/98
WRDA-79	W.R. GRACE	5 – 10	10/20/99
EUCON NR	EUCLID CHEMICAL CO.	3 – 10	09/18/00
EUCON HC	EUCLID CHEMICAL CO.	5 – 8	09/18/00
RECOVER	W.R. GRACE	2.5 min.	08/22/01

* MAY ONLY BE USED IN CONJUNCTION WITH 7 HOUR PATCH MIX

List of Qualified Admixtures for Concrete

TYPE F - WATER REDUCING HIGH RANGE

<u>Product I.D.</u>	<u>Producer</u>	<u>Approved dosage in fluid oz. per 100 lbs. Cement</u>	<u>Approval Date</u>
MIGHTY 150	BOREMCO SPEC. CHEM.	11.9 – 16	03/15/77
FX – 334	FOX INDUSTRIES	12.0 min.	08/14/78
RHEOBUILD 1000	BASF ADMIXTURES	10 – 25	03/10/94
SIKAMENT 86	SIKA CORPORATION	12 – 20	05/23/97
CATEXOL 1000 SP-MN	AXIM CONCRETE TECHNOLOGY	14 – 40	06/07/99
GLENIUM 3000 NS	BASF ADMIXTURES	6.0 – 12.0	06/07/00
EUCON SP	EUCLID CHEMICAL CO.	9.0 – 16.0	01/22/01
SUPERFLUX 2000 PC	AXIM CONCRETE TECHNOLOGY	3 – 10	01/23/02
GLENIUM 3030 NS	BASF ADMIXTURES	7.5 – 18.0	09/25/02
VISCOCRETE 6100	SIKA CORPORATION	6.0 – 12.0	04/22/03
ADVA 170	W.R. GRACE	4.0 – 9.0	03/10/04
GLENIUM 3400 NV	BASF ADMIXTURES	5.5 – 12.0	10/26/04
VISCOCRETE 2100	SIKA CORPORATION	4.0 – 16.0	02/03/05
VISCOCRETE 4100	SIKA CORPORATION	4.0 – 12.0	04/01/05
CHRYSOFLUID OPTIMA 203	CHRYSO INC.	6.0 – 10.0	06/21/07
ADVA 140 M	W.R. GRACE	11.0 – 20.0	07/24/07
EXP 950	W.R. GRACE	3.0 – 10.0	06/12/08
EUCON SPC	EUCLID CHEMICAL CO.	3.5 – 12.0	08/04/08
SIKAMENT 686	SIKA CORPORATION	7.0 – 12.0	08/04/08
EUCLID SPJ	EUCLID CHEMICAL CO.	7.0 – 16.0	08/06/08
GLENIUM 7500	BASF ADMIXTURES	8.0 – 15.0	09/25/08
ADVA 190	W.R. GRACE	4.0 – 15.0	01/13/09

TYPE G – WATER REDUCING HIGH RANGE AND RETARDING

MIGHTY RDI	BOREMCO SPEC. CHEM.	7.5 – 10.5	01/05/79
FX – 335	FOX INDUSTRIES	8.0 min.	04/07/80
DARACEM – 100	W.R. GRACE	12 – 40	12/27/84
POZZOLITH 440N	BASF ADMIXTURES	15.0 min.	08/18/92
EUCON RD-1	EUCLID CHEMICAL CO.	9.0 – 20.0	01/22/01
CHRYSOFLUID OPTIMA 100 *	CHRYSO INC.	9.0 – 25.0	05/21/07
CHRYSOFLUID OPTIMA 203	CHRYSO INC.	11.0 – 20.0	06/21/07

*** Must be stored in plastic containers but not manufactured with PVC. Shelf life is 9 months.**

ADMIXTURES – PRECAST

ADVA CAST 530	W. R. GRACE	3.0 – 10.0	01/26/09
ADVA CAST 555	W. R. GRACE	8.0 – 20.0	01/26/09
ADVA CAST 575	W. R. GRACE	3.0 – 10.0	01/26/09

List of Qualified Asphalt Release Agents

<u>Product I.D.</u>	<u>Producer</u>	<u>Approval Date</u>
NCC 268 RELEASE PLUS	NCC INCORPORATED	03/30/90
ENVIRO/SLIP	DUBOIS CHEMICAL COMPANY	03/30/90
ASPHALT RELEASE	SYNDET PRODUCTS	05/09/90
SLIDE	SYNDET PRODUCTS	05/09/90
ZEP R – 5274	ZEP MANUFACTURING	05/09/90
ZEP 158	ZEP MANUFACTURING	05/09/90
KWIK RELEASE	PRESTO CHEMICAL COMPANY	05/09/90
AFCO 5508	MARYLAND CHEMICAL COMPANY	05/29/90
RELEEZ	ALZO, INCORPORATED	06/01/90
BIG RED	TEXAS REFINERY CORPORATION	06/05/90
SLIPEAZE SB	ROCHESTER / MIDLAND	07/09/90
POLYSLI	DUBOIS CHEMICAL COMPANY	05/10/91
SAFETY SLIDER	SAFETY FIRST CHEMICALS	12/04/91
ZEP R – 6690	ZEP MANUFACTURING COMPANY	12/04/91
BIO – CREAM	PRESTO CHEMICAL COMPANY	02/28/92
L – 901	PURITAN / CHURCHILL	02/28/92
CHEMSEARCH CONCENTRATE	NATIONAL CHEMSEARCH	04/21/92
FO RELEASE	FINE ORGANIC CORPORATION	04/21/92
ENVIRO RELEASE SLIP	R.U.S. ENTERPRISES	04/21/92
TBRA 7191	ARR - MAZ PRODUCTS	05/27/92
SOAP SLIP	D & A, INC.	08/31/92
SLIDE – EZE	DIVERSEY CORPORATION	04/29/93
NO – PHALT II	METAL LUBRICANTS COMPANY	12/22/93
AI – 6235	SPACE CHEMICAL INC.	03/10/94
AR – 92	EMULSO CORPORATION	04/25/94
SMA-SLIP	D & A, INC.	07/11/94
DMX – 7	CUSTOM PRODUCTS RESEARCH, INC.	10/24/94
SUPER FOAM 92	NCC, INC.	10/24/94
VANI-SOL	RECKITT AND COLEMAN, INC.	02/03/95
QUICK RELEASE 2001	AMERICAN LUBRICANTS COMPANY	02/03/95
TBRA STA	ARR - MAZ PRODUCTS, INC.	02/03/95
TECLON – 50	TEC - TEAM INDUSTRIES, INC.	02/03/95
DIVER – SLIP	DIVERSEY CORPORATION	03/20/95
SP-SLIP	D & A INC.	03/20/95
AFR	WILSON SUPPLY CO., INC.	10/03/95
SLIPEAZE NATURAL	ROCHESTER MIDLAND	01/18/96
NCC – 96 PHALT FREE	NCC INCORPORATED	02/21/96
SYN-COAT	PRESTO CHEMICALS	03/21/97
ASPHALT RELEASE ND	CURTIS/GLEN CHEMICAL CORP.	10/08/98
TEC-SHIELD	TEC-TEAM INDUSTRIES	10/08/98
RELEASE-EASE	SHARE CORPORATION	02/10/99
22-133A ASPHALT RELEASE	THE BULLEN COMPANY INCORPORATED	05/17/00
ALL ASPHALT RELEASE	MISCO PRODUCTS	10/25/00
SLIP “n” SLIDE	DRUMMOND AMERICAN CORP.	11/24/00
FREEZE FREE	ZEP MANUFACTURING	04/17/01
V-SLIP	D&A INCORPORATED	07/24/01
5111-Q	QUALI-CHEM INCORPORATED	08/15/01
5112-Q	QUALI-CHEM INCORPORATED	08/15/01

List of Qualified Asphalt Release Agents

<u>Product I.D.</u>	<u>Producer</u>	<u>Approval Date</u>
NS-115	IDEAL CHEMICAL PRODUCTS	05/10/02
ESE-100	DAYCON PRODUCTS CO.	06/17/02
SPX-7	COMPOUND TECHNOLOGIES INC.	12/06/02
#570154	FLAVORCHEM/ORCHIDIA	03/28/03
SOY-SLIP	CANTOL INCORPORATED	06/16/03
AR-2000	FRANKLYNN INDUSTRIES	07/17/03
AR-2217	CLEAN EDGE PRODUCTS	07/20/04
STOP-STIX	STOP STIX! INC.	05/16/05
AR-3600	BIO-SPAN TECHNOLOGIES	08/08/05
AR-2660	CHEMSTATION INC.	08/31/05
2061-A	CHEMSTATION INC.	05/24/06
AP ASPHAL RELEASE	ALGONQUIN PRODUCTS	11/20/07
CLEAN-EDGE #1475	CLEANEDGE	10/28/08
BR 549	MONTGOMERY MANUF. CO.	09/10/09

List of Qualified Epoxy Coatings for Deformed Steel Reinforcing Bars

Product I.D.	Producer	Touch Up/Repair Material	Approval Date
SCHOTCHKOTE 413	3M ELECTRICAL SPECIALTIES DIVISION	413/215 PC	01/19/2007
GREENBAR	VALSPAR, INC	920/G966 920/C966	01/19/2007
NAP-GARD 7-2719	DUPONT POWDER COATINGS	NAP-GARD 7-2727 NAP-GARD 7-1870	01/19/2007

List of Qualified Form Release Compounds

<u>Product I.D</u>	<u>Producer</u>	<u>Approval Date</u>
ARCAL NO HOLD N	ARCAL CHEMICALS, INCORPORATED	01/27/75
FORM OIL SRC	FUCHS METAL LUBRICANTS CO.	04/18/75
WATER SEAL E.A.	THOMPSON COMPANY INCORPORATED	04/18/75
MAGIC – KOTE	SYMONS CORPORATION	07/02/75
DUOGARD	W.R. MEADOWS	09/24/76
FORMSHIELD	W.R. GRACE	04/20/77
FORM KOTE VOC	KAUFMAN PRODUCTS, INC.	08/31/04
REACT – S OTC or REACT S “LIGHT”	CONSPEC MARKETING MANUF. CO.	04/25/83
DRYDEN C	DRYDEN OIL COMPANY	05/16/83
CRETE LEASE 727	CRESSET CHEMICALS COMPANY	07/14/84
PROTEX FORM OIL	PROTEX INDUSTRIES, INC.	09/19/84
DRYDEN CD	DRYDEN OIL COMPANY	12/18/84
CERTIVEX FR	VEXCON CHEMICALS, INC.	07/31/85
CONCRETE RELEASE OIL	DRYDEN OIL COMPANY	08/12/86
FORM REALEASE NO.1	MURPHY PHOENIX COMPANY	12/11/86
FORM RELEASE 85 – 736	MURPHY PHOENIX COMPANY	12/11/86
FORMSHIELD	A.C. HORN INCORPORATED	12/11/96
CRETE LEASE 880	CRESSET CHEMICAL COMPANY	05/11/87
THRIFT KOTE FORM OIL	SYMONS CORPORATION	04/26/88
833 RELEASE AGENT	MASTER BUILDERS	05/26/88
SEALTIGHT DUOGARD	W.R. MEADOWS	01/08/90
FORM OIL OTC	BURKE COMPANY	05/01/91
ECONOMY RELEASE	SYMONS CORPORATION	06/12/90
CLEANSTRIP ULTRA J – 3VOC(LIGHT)	DAYTON SUPERIOR COMPANY	07/13/92
CLEAN STRIP C & M J - 1 – A OTC	DAYTON SUPERIOR COMPANY	07/13/92
CLEAN STRIP J – 1 OTC (LIGHT)	DAYTON SUPERIOR COMPANY	07/13/92
FORM RELEASE GOLD	TRIDEN CONSTRUCTION SUPPLY	12/14/95
FORM KOTE EMULSION	KAUFMAN PRODUCTS	03/07/96
KLEENFORM 89W	FUCHS METAL LUBRICANTS CO.	08/13/96
CITGO CONCRETE FORM OIL	CARROL INDEPENDENT OIL CO.	05/20/98
CHEVRON FORM OIL ISO 22	CHEVRON PRODUCTS COMPANY	07/08/98
FORM FREE VOC	CONSPEC MARKETING	06/07/00
NOX-CRETE	KINSMAN CORP./NOX-CRETE	09/27/00
BRAD PENN / PENN-GRADE ***	AMERICAN REFINING GROUP	05/30/02
FORMKOTE S	KAUFMAN PRODUCTS	02/15/07
KLEENLEASE 28 OTC	KAUFMAN PRODUCTS	05/03/07
FORM KOTE OTC	KAUFMAN PRODUCTS	05/21/07
SPEC STRIP	SPEC CHEM	10/23/07
DSR FORM OIL	UNITED OIL COMPANY	09/22/09

*** Because of chemical reactions discoloration takes 24-48 hours to disappear.

List of Qualified Styrene-Butadiene Latex Emulsion Admixtures for PCC

<u>Product I.D.</u>	<u>Producer</u>	<u>Approval Date</u>
MODIFIER A	DOW CHEMICAL COMPANY	04/09/79
FX – 337	FOX INDUSTRIES	07/06/79
TYLAC 97 – 314	REICHOLD CHEMICALS	04/20/81
STYROFAN 1186	BASF CORPORATION	10/23/03

List of Qualified Rapid Hardening Cementitious Material

<u>PRODUCT I.D.</u>	<u>TYPE 1 SLOW</u>	<u>TYPE 2 RAPID</u>	<u>TYPE 3 V. RAPID</u>	<u>CLASS 1 BELOW 50</u>	<u>CLASS 2 50-90</u>	<u>CLASS 3 ABOVE 90</u>
EMACO 415	X				X	
RAPID SET CEMENT			X		X	
FX - 928		X	X		X	X
IFSCEM 110			X		X	
FX - 928 W	X			X		
PROSPEC MAGNA 100			X		X	X
THOROC 10-60			X		X	
5 STAR		X			X	
BONSAL VR		X			X	
EUCO MP			X		X	
SYMONS DOT		X			X	
DAY-CHEM PERMA PATCH	X	X			X	
SPEEDCRETE 2028	X				X	
SET 45		X			X	
SIKASET ROADWAY PATCH		X			X	
POWERSET 120			X		X	
EXPRESS REPAIR MORTAR		X	X		X	X
EXPRESS REPAIR MORTAR	X	X		X		
QUIKRETE RAP.ROAD REPAIR		X			X	
SIKAQUICK2500			X		X	
FUTURA 15			X		X	
EUCO-SPEED	X				X	
VERSASPEED			X		X	
COMM. GRADE FASTSET MIX			X		X	
DURACRETE II			X		X	
CTS RAPIDSET			X		X	

<u>PRODUCT I.D.</u>	<u>MAX LIQUID GAL/WT PATCH MAT.</u>	<u>INITIAL SET</u>	<u>COMP. STRENGTH 2000 PSI + @...HOURS</u>	<u>APPROVAL DATE</u>
EMACO 415	0.50/4.20 LBS.	19 MIN.	2830...6 HRS.	11/92
RAP SET CEMENT	0.75/6.25 LBS.	12 MIN.	4320...2 HRS.	12/92
FX - 928	0.75/6.25 LBS.	24 MIN.	3230...2 HRS.	03/93
FX - 928	0.82/6.85 LBS.	36 MIN.	2960...4 HRS.	03/93
IFSCEM 110	0.875/7.29LBS.	16 MIN.	3970...2 HRS.	07/01
FX - 928 W	0.92/7.50 LBS.	24 MIN.	2800...2 HRS.	12/93
PROSPEC MAGNA 100	0.50/4.20 LBS.	14 MIN.	3710...2 HRS.	02/94
THOROC 10-60	0.69/5.72 LBS.	19 MIN.	3900...2 HRS.	04/94
5 STAR	0.75/6.25 LBS.	12 MIN.	2800...2 HRS.	03/95
BONSAL VR	0.72/6.00 LBS.	13 MIN.	6050...2 HRS.	05/95
EUCO MP	0.50/4.17 LBS.	15.5 MIN.	5250...2 HRS.	11/96
SYMONS DOT	0.87/7.29 LBS.	20 MIN.	2950...2 HRS.	11/96
DAY-CHEM PERMA-PATCH	0.87/7.29 LBS.	38 MIN.	2780...3.5 HRS.	04/98
SPEEDCRETE 2028	0.62/5.21 LBS.	17.5 MIN.	3680...2 HRS.	07/98
SET 45	0.50/4.17 LBS.	17.0 MIN.	7010...2 HRS.	09/98
SIKASET ROADWAY PATCH	1.125/9.37LBS.	64.0 MIN.	2340...2 HRS.	10/98
POWERSET 120	0.876/7.25LBS.	23.0 MIN.	2630...2 HRS.	09/02
EXPRESS REPAIR MORTAR	0.75/6.25LBS.	25.0 MIN.	3030...2 HRS.	10/28/02
QUIKRETE RAP.ROADREPAIR	0.78/6.50LBS.	10.0 MIN.	2160...2 HRS.	04/16/03
SIKAQUICK2500	0.688/5.73LBS.	10.0 MIN.	3810...2 HRS.	04/27/04
FUTURA 15	0.66/5.5LBS.	21.5 MIN.	3200...2 HRS.	02/17/05
EUCO-SPEED	0.75/6.25LBS.	14.5 MIN.	2350...6 HRS.	07/26/05
VERSASPEED	0.469/3.91LBS.	15.0 MIN.	2920...2HRS.	09/28/05
COMM. GRADE FASTSET MIX	1.0/8.33/ LBS.	10.0 MIN.	3640...2HRS.	06/06/07
DURACRETE II	0.563/4.69 LBS.	10.0 MIN.	6310...2HRS.	06/06/07

List of Qualified White Pigmented Curing Compounds

<u>Product I.D.</u>	<u>Producer</u>	<u>Formula designation</u>	<u>Prequal. Sample wt. and field control range LB/gal</u>	<u>Approval Date</u>
WET	HUNT PROCESS CORPORATION	WET (<i>W</i>)	8.6 ± 0.3	04/30/81
SCOTCH – KURE	OLD NORTH MANUFACTURING COMPANY, INC.	SK - W (<i>R</i>)	9.0 ± 0.3	02/23/82
ENVIOCURE WHITE	VEXCON CHEMICALS, INCORPORATED	1000 (<i>R</i>)	9.1 ± 0.3	03/15/85
HORNCURE WP	A.C. HORN INCORPORATED	2803 - (<i>R</i>)	8.5 ± 0.3	06/23/89
D.S.S.C.C. CLEAR RESIN CURE	DAYTON SUPERIOR	(<i>R</i>)	8.7 ± 0.3	09/05/90
SAFE – CURE WHITE 1000	CHEMASTERS	94 - 009 (<i>W</i>)	8.4 ± 0.3	03/28/94
THINFILM	KAUFMAN PRODUCTS, INC.	445 - (<i>W</i>) 456 - (<i>R</i>)	8.5 ± 0.3 9.0 ± 0.3	01/03/95 05/27/97
SEALTIGHT	W.R. MEADOWS OF PENN., INC.	1645 WHITE (<i>W</i>) 2230 (<i>R</i>)	8.3 ± 0.3 8.4 ± 0.3	06/12/96 06/18/97
D.S.S.C.C. WHITE WAX CURE	DAYTON SUPERIOR	(<i>W</i>)	8.4 ± 0.3	11/12/96

(W) = Wax Base

(R) = Resin Base

List of Qualified Emulsion Cold Applied Damp proofing Agents

<u>Producer I.D.</u>	<u>Producer</u>	<u>Approval Date</u>
SEALMASTIC	W.R. MEADOWS	12/14/95
HYDROCIDE	BASF CONSTRUCTION CHEMICALS	12/14/95
KARNAK #220 AF	KARNAK CHEMTREX INC.	12/29/95
EF-7	SEABOARD ASPHALT	03/30/07

List of Qualified Non-shrink Cementitious Grout

Producer I.D.

IPATOP
FX 228
EUCCO N – S GROUT
SURE – GROUT NON – SHRINK
MULTI – PURPOSE N - S GROUT
PERMAGROUT N – S GROUT
CRYSTEX N - S GROUT
SIKA GROUT 212 NON – SHRINK
CERTI – GROUT
RAPID SET CEMENT ALL N – S
CONSTRUCTION-GROUT
NBEC
CONSET GROUT
PRO-GROUT 100
CG-200-PC
1107ADVANTAGE GROUT
PRECISION GROUT NS-GROUT
PROSPEC HIGH STRENGTH PRECISION GROUT
BONSAL C-1107 N-S GROUT
ULTI-GROUT N-S GROUT
COMMERCIAL GRADE FAST SET N-S GROUT

Producers

IPA SYSTEMS INCORPORATED
FOX INDUSTRIES
EUCLID CHEMICAL
KAUFMAN PRODUCTS
SYMONS CORPORATION
NATIONAL PERMACRETE COMPANY
L & M CONSTRUCTION CHEMICALS INC.
SIKA CORPORATION
VEXCON CHEMICALS INC.
CTS CEMENT MANUFACTURING
BASF CONSTRUCTION TECHNOLOGIES, LLC
5 STAR PRODUCTS INCORPORATED
CHEMASTERS
C.G.M. INCORPORATED
HILTI CORPORATION
DAYTON SUPERIOR
QUIKRETE COMPANIES
BONSAL AMERICAN
BONSAL AMERICAN
HEARTLAND CEMENT SALES COMPANY
QUIKRETE COMPANIES

List of Qualified Clear or Translucent Curing Compounds

Producer I.D.

THINFILM 420
 SAFE – CURE
 SEALTIGHT 1130
 D.S.S.C.C. CLEAR RESIN CURE
 ENVIO-CURE

Producer

KAUFMAN PRODUCTS INCORPORATED
 CHEMASTERS
 W.R. MEADOWS INC.
 DAYTON SUPERIOR
 VEXCON CHEMICALS

NOTE: Certi-Vex RC can continue being used until supplies are empty.

List of Qualified Cure & Seal Compounds for “Architectural Colored Concrete”

<u>Producer I.D.</u>	<u>Producer</u>	<u>Date Approved</u>
STAR SEAL 1315	VEXCON CHEMICALS	12/06/00

List of Qualified Loop Sealants

<u>Producer I.D.</u>	<u>Producer</u>	<u>1 or 2 Part</u>
MAGNALOOP II	MAGNOLIA PLASTICS	2
3M LOOP SEALANT	3M CORPORATION	1
SUPER FLEX EPOXY (E-7091/E-7092)	BONDO	2
FX 592	FOX INDUSTRIES	2
Q-SEAL 290S	CHEMQUE INC.	1

List of Qualified Soil Stabilization Matting Products

NOTE: This List Only Applies To Contracts Designed Under the 2001 Standard Specifications for Construction and Materials Book

Type A Soil Stabilization Matting for Channel Velocity less than 5 f.p.s.

(For Type A SSM, the netting shall be degradable; netting shall not be permanent or quick break-down)

<u>Product I.D.</u>	<u>Manufacturer</u>
AEC Premier Coconut Curlex I Curlex II	American Excelsior Company www.americanexcelsior.com (800) 777-7645
Dekowe 700 Dekowe 900	Belton Industries, Inc. www.beltonindustries.com (800) 845-8753
Futerra	Conwed Fibers www.conwedfibers.com (800) 207-6457
ECS-1 ECS-2 ECSC-2 ECX-1 ECX-2 ECC-2 ECC-2B	East Coast Erosion Blankets, LLC www.erosionblankets.com (800) 582-4005
SC3000	Enviroscape ECM, Ltd. www.strawblanket.com (888) 550-1999
S31 S32	Erosion Control Blanket.com www.erosioncontrolblanket.com (866) 208-7327
WS072	Greenfix America www.greenfix.com (760) 351-7791
C-125 S-75 SC-150	North American Green, Inc. www.nagreen.com (800) 772-2040
Excelsior High Velocity Excelsior Standard	Verdyol www.verdyol.ca (866) 280-7327

Type A Soil Stabilization Matting for Channel Velocity less than 5 f.p.s.

(For Type A SSM, the netting shall be degradable; netting shall not be permanent or quick break-down)

X-Cel Permamat 100 Cel Regular
X-Cel Regular
X-Cel Superior

Western Excelsior Corporation
www.westernexcelsior.com
(800) 833-8573

Winters Excelsior Standard

Winters Excelsior, Inc.
www.wintersexcelsior.com
(800) 248-7237

Type A Soil Stabilization Matting for Slopes of 3:1 or Flatter

(For Type A SSM, the netting shall be degradable; netting shall not be permanent or quick break-down)

Product I.D.

Manufacturer

AEC Premier Coconut
AEC Premier Straw/Coconut
AEC Premier Straw Double Net
AEC Premier Straw Single Net
Curlex I

American Excelsior Company
www.americanexcelsior.com
(800) 777-7645

Futerra

Conwed Fibers
www.conwedfibers.com
(800) 207-6457

ECS-1
ECS-2
ECX-1
ECX-2
ECC-3

East Coast Erosion Blankets, LLC
www.erosionblankets.com
(800) 582-4005

SC3000

Enviroscape ECM, Ltd.
www.strawblanket.com
(888) 550-1999

S31
SC32

Erosion Control Blanket.com
www.erosioncontrolblanket.com
(866) 208-7327

WS072

Greenfix America
www.greenfix.com
(760) 351-7791

MA-S1
MA-S2

Mid America Erosion Control Products, Inc.
(812) 289-1900

C-125
S-75
S-150

North American Green, Inc.
www.nagreen.com
(800) 772-2040

Type A Soil Stabilization Matting for Slopes of 3:1 or Flatter

(For Type A SSM, the netting shall be degradable; netting shall not be permanent or quick break-down)

Product I.D.

RS-1
RS-2

Manufacturer

RobexShield
www.robcoseed.com
(800) 851-5168

Ero-Mat High Velocity
Ero-Mat Standard

Verdyol
www.verdyol.ca
(866) 280-7327

Excel SS-2
Excel SR-1
X-Cel Regular
X-Cel Superior

Western Excelsior Corporation
www.westernexcelsior.com
(800) 833-8573

Winters Excelsior Standard

Winters Excelsior, Inc.
www.winterexcelsior.com
(800) 248-7237

Type A Soil Stabilization Matting for Slopes Steeper than 3:1

(For Type A SSM, the netting shall be degradable; netting shall not be permanent or quick break-down)

Product I.D.

AEC Premier Coconut
AEC Premier Straw/Coconut
Curlex I
Curlex II

Manufacturer

American Excelsior Company
www.americanexcelsior.com
(800) 777-7645

ECS-2
ECSC-2
ECX-2
ECC-2

East Coast Erosion Blankets, LLC
www.erosionblankets.com
(800) 582-4005

S-150
SC-150

North American Green, Inc.
www.nagreen.com
(800) 772-2040

Ero-Mat High Velocity
Excelsior High Velocity

Verdyol
www.verdyol.ca
(866) 280-7327

X-Cel Regular
X-Cel Superior

Western Excelsior Corporation
www.westernexcelsior.com
(800) 833-8573

Type B Soil Stabilization Matting for Channel Velocity 5.0 – 8.5 f.p.s.

Product I.D.

Manufacturer

Recyclex TRM

American Excelsior Company
www.americanexcelsior.com
(800) 777-7645

Enkamat 7210
Enkamat 7220

Colbond, Inc.
www.colbond.com
(828) 665-5050

Contech TRM C-45
Contech TRM C-60

Contech Construction Products, Inc.
www.contech-cpi.com
(800) 338-1122

ECP-2

East Coast Erosion Blankets, LLC
www.erosionblankets.com
(800) 582-4005

P42

Erosion Control Blanket.com
www.erosioncontrolblanket.com
(866) 208-7327

Pec-Mat

Greenstreak
www.greenstreak.com
(760) 351-7791

Miramat TM8

Mirafi Construction Products
www.tencate.com
(706) 693-2226

C-350
P-300

North American Green, Inc.
www.nagreen.com
(800) 772-2040

Landlok TRM 435
Landlok TRM 450
Landlok TRM 1060

Propex, Inc.
www.geotextile.com
(800) 621-1273

RSP-5

RobexShield
www.robcoseed.com
(800) 851-5168

Multimat TRM 100

Tenax Corporation
www.tenaxus.com
(800) 356-8495

Excel PP5-8
Excel PP5-10
Excel PP5-12

Western Excelsior Corporation
www.westernexcelsior.com
(800) 833-8573

List of Qualified Soil Stabilization Matting Products

**NOTE: This List Only Applies To Contracts Designed Under the 2008
Standard Specifications for Construction and Materials Book**

Type A Soil Stabilization Matting

(For Type A SSM, the netting shall be degradable; neither permanent or quick break-down netting shall be substituted)

Product I.D.

Manufacturer

Curlex II

American Excelsior Company
www.americanexcelsior.com
(800) 777-7645

ECX-2
ECXG-2

East Coast Erosion Blankets, LLC
www.erosionblankets.com
(800) 582-4005

Excel S-2

Western Excelsior Corporation
www.westernexcelsior.com
(800) 833-8573

Type B Soil Stabilization Matting

Product I.D.

Manufacturer

P-300
P-550

North American Green, Inc.
www.nagreen.com
(800) 772-2040

Excel PP5-12

Western Excelsior Corporation
www.westernexcelsior.com
(800) 833-8573

Type C Soil Stabilization Matting

Product I.D.

Manufacturer

PRODUCTS UNDER REVIEW

Type D Soil Stabilization Matting

Product I.D.

GeoCoir/Dekowe 700

EcoMatting 700

EcoMatting 900

KoirMat 700

KoirMat 900

BioD-Mat 70

Manufacturer

Belton Industries, Inc.

www.beltonindustries.com

(800) 845-8753

EcoDepot, LLC

www.ecodepotsales.com

(443) 304-3317

Nedia Enterprises, Inc.

www.nedia.com

(888) 725-6999

RoLanka International

www.rolanka.com

(770) 506-8211

List of Qualified Concrete Stains for Noise Barriers

<u>PRODUCT I.D.</u>	<u>COLOR</u>	<u>MANUFACTURER</u>	<u>APPROVAL DATE</u>	
			<u>(PROV.)</u>	<u>(PERM.)</u>
AQUASTAIN T-96	#20045	TAMMS INDUSTRIES	03/24/98	08/14/00
FX-430	#20045	FOX INDUSTRIES	04/28/98	05/24/99
H&C Solid Color Water Based	#20475	SHERWIN WILLIAMS	08/13/98	09/02/99
H&C Solid Color Water Based	#20140	SHERWIN WILLIAMS	08/31/98	09/02/99
H&C Solid Color Water Based	#20045	SHERWIN WILLIAMS	09/09/98	09/02/99
DURA-CRETE 68-161	#20475	DURON PAINTS	02/02/99	05/23/00
DURA-CRETE 68-162	#20045	DURON PAINTS	04/14/99	05/23/00
DURA-CRETE 68-173	#20140	DURON PAINTS	04/14/99	05/23/00
CERTI-VEX GUARD CACS	#20045	VEXCON CHEMICALS	05/30/00	
CANYON TONE STAIN "W"	#20045	UNITED COATINGS	08/15/00	01/24/01
CANYON TONE STAIN "W"	#20140	UNITED COATINGS	08/15/00	01/24/01
CANYON TONE STAIN "W"	#20475	UNITED COATINGS	08/15/00	01/24/01
AQUASTAIN T-96	#20140	TAMMS INDUSTRIES	11/23/01	
AQUASTAIN T-96	#20475	TAMMS INDUSTRIES	11/23/01	
McCORMICK ACRYLIC STAIN	#20045	McCORMICK PAINTS	04/04/07	04/04/07
McCORMICK ACRYLIC STAIN	#20140	McCORMICK PAINTS	04/04/07	04/04/07
McCORMICK ACRYLIC STAIN	#20475	McCORMICK PAINTS	04/04/07	04/04/07

Qualified Concrete Stains for Architectural Finishes

<u>PRODUCT I.D.</u>	<u>MANUFACTURER</u>	<u>APPROVAL DATE</u>	
		<u>(PROV.)</u>	<u>(PERM.)</u>
H&C's Solid Color Water Based	SHERWIN WILLIAMS	03/03/04	
CANYON TONE STAIN "W"	UNITED COATINGS	08/15/00	12/10/01
FX-430	FOX INDUSTRIES	05/01/02	09/21/04
AQUASTAIN T-96	TAMMS	08/20/03	
DURA-CRETE 68-189 11	DURON	10/21/03	
McCORMICK ACRYLIC STAIN 02 SERIES	McCORMICK PAINTS	04/13/07	04/13/07

Qualified Hot And Cold Applied Joint Sealants

Hot Applied Joint Sealants

MANUFACTURER	PRODUCT I.D.	DATE APPROVED
CRAFCO, INC. 1880 EAST RACE STREET ALLENTOWN, PA 18103	ROADSAVER 221 POLYFLEX 518 PAVEMENT JOINT ADHESIVE	JANUARY 2003 MAY 2003 OCTOBER 2004
McASPHALT INDUSTRIES LTD 8800 SHEPPERD AVENUE E. SCARBOROUGH, ONTARIO CANADA, M1B 5R4	BERAM 195	JANUARY 2003
W.R. MEADOWS INC. P.O. Box 338 HAMPSHIRE, IL 60140-0338	SEALTIGHT 3405	JULY 2003
P&T PRODUCTS INC. 472 INDUSTRIAL PARKWAY SANDUSKY, OH 44870	DURA-FILL 3405	NOVEMBER 2006

Cold Applied Joint Sealants

MANUFACTURER	PRODUCT I.D.	DATE APPROVED
UNIQUE PAVING MATERIALS 3993 E. 93 rd STREET CLEVELAND, OH 44105	KOLDFLO	JANUARY 2003

LIST OF QUALIFIED TACK COAT EMULSION REFINERIES AND PRODUCTS

PRODUCERS	PRODUCT	APPROVAL DATE
HAMMAKER EAST, LTD 118 SILOAM ROAD CHAMBERSBERG, PA 17201	CSS-1h CRS-1	03/01/2009
HAMMAKER EAST, LTD BALTIMORE PLANT 3450 ASIATIC AVENUE BALTIMORE, MD 21226	CRS-1 CRS-2	03/01/2009
SPECIALTY EMULSIONS MATERIALS (SEM) 1194 ZINNS QUARRY ROAD YORK, PA 17404	CSS-1h CRS-1	03/01/2009
NUSTAR ASPHALT REFINING, LLC 18000 COCKPIT POINT ROAD DUMFRIES, VA 22026	CRS-1 CRS-2	03/01/2009
SEM MATERIALS 3847 POTTSVILLE PIKE ROAD READING, PA 19605	CRS-2	03/01/2009
MARATHON ASHLAND PETROLEUM HIGHWAY 23 SOUTH CATTLETTSBURG, KY	CRS-2	03/01/2009

List of Maryland Compost Producers (2003)

Landscape Operations Division

Biosolids Compost (Type A)

Aberdeen WWTP/Composting Fac.

Kenneth Benner, Superintendent
Aberdeen WWTP
361 Michael Lane
Aberdeen, MD 21001
Ph: 410-272-2651 Fax: 410-273-1253

Baltimore City Composting Facility

Preston E. Cloke or David Hill, Project Managers
Professional Services Group
5800 Quarantine Road
Baltimore, MD 21226

Elkton WWTP/Composting Facility

Severn Trent Environmental Services
Contact: Stan Wright 410-392-0711 fax: 410-392-0758
Superintendent: Mark Turnpull
200 W. Pulaski Highway
Elkton, MD 21921
410-398-6760 (plant) Fax: 410-398-1299

Havre de Grace WWTP/Composting

Donna Costango
City of Havre de Grace DPW
711 Pennington Avenue
Havre de Grace, MD 21078
Plant: 1 Jerry Foster Way
Havre de Grace, MD 21078
Ph: 410-939-1220 (plant) fax: 410-939-8275

Perryville WWTP/Composting Fac.

Contact: MES, Ahmad Razik
Ph: 410-974-7276 Fax: 410-974-7267
Alvin Hathaway, Chief WWTP Operator
Town of Perryville
515 Broad Street, P.O. Box 773
Perryville, MD 21903
Ph: 410-642-6142 (plant) fax: 410-642-6391

Queen Anne's/Kent Island WWTP/Composting

Charles Nelson, Chief WWTP Operator
Queen Anne's County Sanitary District
310 Bateau Drive, P.O. Box 10
Stevensville, MD 21666
Ph: 410-643-3535 (dispatch) Fax: 410-643-7364

Source-Separated Compost (Type B)

Forest Recycling Project, Inc.

Attn: Jeff Bassler
5050 Sheppard Lane
Ellicott City, MD 21042
Ph: 410-531-2193 Fax: 410-531-6167

Southern Maryland Manure Service

Attn: Yates Clagett
17011 River Airport Road
Brandywine, MD 20613
Ph: 301-579-2486 Fax: 301-574-5456

New Earth Services, Inc.

Attn: C. Patrick Condon
306 Mill Street
Cambridge, MD 21613
Ph: 410-2216057 Fax: 410-221-6053

Earthwise/Hideaway Farm, LLC

Attn: Buddy Cox
2209 Cox Road
Gambrills, MD 21054
Ph: 410-793-0127 Fax: 410-721-8067

Mill Dale Farms, Inc.

Attn: William Hibberd, Jr.
801 Green Valley Road
New Windsor, MD 21776
Ph: 410-635-6141 Fax: 410-635-3282

Pogo Tree Experts/Acme Biomass

Attn: Pogo Sherwood
17328 Georgia Avenue
Olney, MD 20832
Ph: 301-774-2968 Fax: 301-774-3691

Obligation Farm

Attn: Christopher Wilson
4024 Solomon's Island Road
Harwood, MD 20776
Phone: 410-798-1650

Maryland Environmental Services

Attn: Marketing Department
Contact: Robert Natarian
2011 Commerce Park Drive
Annapolis, MD 21401
Ph: 301-261-8596 Alt Phone: 301-627-6487

Dickerson Compost Facility

Attn: Nanci Koerting
21210 Martinsburg Road
Dickerson, MD 20842
Ph: 301-428-8185 Fax: 301-428-8311

Recycled Green Industries LLC

Attn: Matthew Helbig & Edward Mulheron
10563 Metropolitan Ave
Kensington, MD 20895
Ph: 301-933-4300 Fax: 301-942-6734

List of Qualified Sod Producers

Product I.D.	Producer	Approval Date
Maryland Certified Tall Fescue Sod	Aldino Sod Farms	April 10, 2007
	Central Sod Farms	April 10, 2007
	Chuck Wade Sod Farm	April 10, 2007
	Collins Wharf Sod	April 10, 2007
	Fox Hall Farm, LLC	April 10, 2007
	Green Manor Turf Farm, Inc.	April 10, 2007
	Greensward Turf Farm, Inc.	April 10, 2007
	C. Joseph Jamison	April 10, 2007
	Laytonville Landscaping, Inc.	April 10, 2007
	Lucas Landscaping Turf Farm	April 10, 2007
	Middleton Manor Farms, Inc.	April 10, 2007
	Murray Sod Farm	April 10, 2007
	Oakwood Sod Farm	April 10, 2007
	J.T. Patton & Sons, Inc.	April 10, 2007
	Robert Hawkins Sod Farm	April 10, 2007
	Royal Sod Farms, LLC	April 10, 2007
	Shady Oaks Turf Farm, Inc.	April 10, 2007
Tree Center Inc./Kimberthy Turf Farm, Inc.	April 10, 2007	
Tuscarora Farms, LLC	April 10, 2007	

List of Qualified Producers of SHA Seed Mixes

APPROVED SEED MIXES	SUPPLIERS	APPROVAL DATE
SHA Turfgrass Seed Mix SHA Special Purpose Seed Mix SHA Temporary Seed Mix	Pennington – MD (formerly Lofts Seed) 9327 Washington Blvd. Suite J Laurel, MD 20723	04/10/2009
	Meyer Seed of Baltimore, Inc. 600 S. Caroline St. Baltimore, MD 21231	
	Meyer Seed International, Inc. 4321 Fitch Ave. Baltimore, MD 21236	
	Newsom Seed, Inc. P.O. Box 510 11788Route 216 Fulton, MD 20759	

Qualified Detectable Warning Surfaces

Product Type	Producer	Product Name	Color	Approval Date
Type I	ADA Solutions	Cast in Place Paver Wet Set Replaceable	Yellow, Brick Red Yellow, Brick Red	11/15/2006 09/21/2007
	Armor Tile Engineered Plastics, Inc.	Cast in Place Tile Replaceable Cast in Place Tile	Yellow, Red, Gray Yellow, Red, Gray	08/11/2005 01/06/09
	East Jordan Iron Works	Detect. Warning Plate	Plain	11/15/2006
	Neenah Foundry Co.	Detect. Warning Plate	Natural	02/04/09
	Armorcast Products	Wet Set Panel	Yellow	5/13/09
Type IIa	ADA Solutions	Surface Applied Paver	Yellow, Brick Red	11/15/2006
	Armor Tile Engineered Plastics, Inc.	Surface Applied Tile	Yellow, Red, Gray	08/11/2006
	Armorcast	Tile Panel	Yellow	5/13/09
Type IV	ADA Solutions	Prefilled Pavers	Yellow, Brick Red	11/15/2006
	Armor Tile Engineered Plastics, Inc.	Prefilled Modular Tile	Yellow, Red, Gray	08/11/2005
Type IIb	Flint Trading Inc.	TopMark	Black, Brick Red	01/29/09

List of Qualified Permanent Sign Sheeting Material

Product Name	Manufacturer	Model #	Color(s)	Spec. Reference	Approval Date
Diamond Grade (LDP)	3M	Type VII Series 3970	All	950.03 813.01	05/17/07
Diamond Grade Cubed	3M	DG Cubed Series 4000	All	950.03 813.01	05/17/07
Engineer Grade Sign Sheeting	3M	Type I Series 3200	All	950.03 813.01	05/17/07
High Intensity Sign Sheeting	3M	Type III Series 3800	All	950.03 813.01	05/17/07
Hi Prismatic Sign Sheeting	3M	Type IV Series 3930	All	950.03 813.01	05/17/07
Diamond Grade (VIP)	3M	Type IX Series 3990	All	950.03 813.01	05/17/07
Engineer Grade Sign Sheeting	Avery Dennison	Type I Series T1500	All	950.03 813.01	05/17/07
Super Engineer Grade Sign Sheeting	Avery Dennison	Type II Series T2500	All	950.03 813.01	05/17/07
High Intensity Sign Sheeting	Avery Dennison	Type III Series T6500	All (except brown)	950.03 813.01	05/17/07
High Intensity Sign Sheeting	Avery Dennison	Type IV Series T6500	All	950.03 813.01	05/17/07

"Note: When sheeting of different types are specified on the same sign (IE: Type IV on Type IX) the sheeting shall be from the same manufacturer."

MARYLAND QUALIFIED PRODUCT LIST (QPL)
PAVEMENT MARKINGS DEFINITIONS

It is Maryland State Highway Administration's (MDSHA) policy to evaluate new pavement marking material to assure these materials meet or exceed Maryland qualification requirements. In order to ensure fairness and consistency, the following procedures and requirements will be applied to all manufacturers' candidate materials for pavement markings.

Pavement marking materials are divided into four categories; **durable materials, non-durable materials, raised pavement markers, and removable (temporary) materials.**

Durable materials are pavement markings expected to provide useful traffic guidance and perform satisfactorily for more than one year of expected Annual Average Daily Traffic (AADT) and normal climatic conditions. Examples in Maryland are **Permanent Tape, Inlaid Permanent Tape, Thermoplastic, Heat-applied Thermoplastic, and Epoxy.**

Non-durable materials are pavement markings expected to provide useful traffic guidance and perform satisfactorily for up to one year of expected Annual Average Daily Traffic (AADT) and normal climatic conditions. An example in Maryland is **Waterborne Paint.**

Removable (Temporary) Materials are non-durable pavement markings expected to provide useful traffic guidance and perform satisfactorily for six months or less under average traffic and climatic conditions in Maryland. Examples are **Removable Tapes**, defined within this Office of Materials Technology (OMT) document, and **Removable Raised Pavement Markers** found in the Office of Traffic and Safety's QPL at <http://www.sha.maryland.gov/businesswithsha/evaluations/omt/qpl.asp>.

Raised/Recessed Pavement Markers (RPM) are a type of traffic control device. They are mounted on or in a road surface, and are intended to be used as a positioning guide or to supplement pavement marking lines. Examples of RPMs include **snow plowable** (casting/reflector; used in snow-belt states) and **temporary** (chip seal markers or "sun country" markers).

NOTE: Pavement Marking Materials Not Included within Maryland's QPL

The following materials require testing and certification before acceptance:

Glass Beads are used to enhance retroreflectivity in pavement markings.

RPM Casting/Housing Adhesive is used to affix casting/housing into road surface.

RPM Lens Adhesive is used to affix lenses into casting/housings or on road surface.

DURABLE MATERIALS

PROCEDURE:

All durable materials must conform to the following:

The manufacturer places the candidate material on a **Northern** test deck of The National Transportation Product Evaluation Program (NTPEP).

The NTPEP test results, both field and laboratory, are compared to Maryland's qualification requirements included in this document.

Materials must be submitted for limited placement through Maryland's Product Evaluation List (MPEL) for further evaluation on Maryland highways.

- When a new type of pavement marking material's NTPEP results indicate it meets Maryland's specifications
- When a material or manufacturer has been previously disqualified by MDSHA
- When a material has an application method that is not validated by NTPEP

Three geographic locations will be chosen. The Maryland evaluation will be completed once the material has been through an entire snowplow season.

Upon satisfactory completion of color, retro-reflectivity, durability, and lab evaluations, the material will be placed on the MDSHA Qualified Products List.

Material samples will be taken at the manufacturer's facilities during periodic audits, and tested by MDSHA.

If components or the proportioning of the material changes, the material will be withdrawn from Maryland's QPL.

Maryland reserves the right to withdraw ANY approval or qualification if the material demonstrates poor performance. Maryland also reserves the right to extend the field evaluations.

QUALIFICATION REQUIREMENTS:

Lab Criteria – see Special Provisions Inserts and Designated Tests

NTPEP Field Performance:

Inlaid Tape: (Durable)

Retro-reflectivity – When measured on NTPEP Northern test deck, outside of the wheel path on transverse lines or the skip line using a 30 – meter retro-reflectometer the minimum shall average:

INITIAL	TWENTY-FOUR MONTHS
*350 mcd/lux/sq./m. for white	*300 mcd/lux/sq./m. for white
*250 mcd/lux/sq./m. for yellow	*200 mcd/lux/sq./m. for yellow

Durability – (film loss) >6 (on a scale of 0 – 10 with 10 being the best)

Color – Satisfactory comparison to a yellow chart or white chip.

Surface Applied Tape: (Durable)

Retro-reflectivity – When measured on NTPEP Northern test deck, outside of the wheel path on transverse lines or the skip line using a 30 – meter retro-reflectometer the minimum shall average:

INITIAL	TWENTY-FOUR MONTHS
*350 mcd/lux/sq./m. for white	*175 mcd/lux/sq./m. for white
*250 mcd/lux/sq./m. for yellow	*150 mcd/lux/sq./m. for yellow

Durability – (film loss) >6 (on a scale of 0 – 10 with 10 being the best)

Color – Satisfactory comparison to a yellow chart or white chip.

Thermoplastic: (Durable)

Specification: Lead-Free

Retro-reflectivity – When measured on NTPEP Northern test deck, outside of the wheel path on transverse lines or the skip line using a 30 – meter retro-reflectometer the minimum shall average:

INITIAL	TWENTY-FOUR MONTHS
*250 mcd/lux/sq./m. for white	*250 mcd/lux/sq./m. for white
*150 mcd/lux/sq./m. for yellow	*150 mcd/lux/sq./m. for yellow

Durability – (film loss) >6 (on a scale of 0 – 10 with 10 being the best)

Color – Satisfactory comparison to a yellow chart or white chip.

Heat-Applied Thermoplastic (Preformed Thermoplastic): (Durable)

Specification: Lead-Free

Retro-reflectivity – When measured on NTPEP Northern test deck, outside of the wheel path on transverse lines or the skip line using a 30 – meter retro-reflectometer the minimum shall average:

INITIAL	TWENTY-FOUR MONTHS
*250 mcd/lux/sq./m. for white	*250 mcd/lux/sq./m. for white
*150 mcd/lux/sq./m. for yellow	*150 mcd/lux/sq./m. for yellow

This criteria denotes both “Preheat” and “Non-preheat” installation

Durability – (film loss) >6 (on a scale of 0 – 10 with 10 being the best)

Color – Satisfactory comparison to a yellow chart or white chip.

Epoxy: (Durable)

Specification: Lead-Free

Retro-reflectivity – When measured on NTPEP Northern test deck, outside of the wheel path on transverse lines or the skip line using a 30 – meter retro-reflectometer the minimum shall average:

INITIAL	TWENTY-FOUR MONTHS
*275 mcd/lux/sq./m. for white	*250 mcd/lux/sq./m. for white
*200 mcd/lux/sq./m. for yellow	*150 mcd/lux/sq./m. for yellow

Durability – (film loss) >6 (on a scale of 0 – 10 with 10 being the best)

Color – Satisfactory comparison to a yellow chart or white chip.

***Climatic changes alter NTPEP results from season to season. These minimum required numbers may change when Maryland analyzes the most recent NTPEP data for all candidate materials.**

**NON-DURABLE MATERIALS
WATERBORNE PAINT PROCEDURE:**

All waterborne paint must conform to the following:

The manufacturer places the candidate material on a **Northern** test deck of The National Transportation Product Evaluation Program (NTPEP).

The NTPEP test results, both field and laboratory, are compared to Maryland’s qualification requirements.

Materials must be submitted for limited placement through Maryland’s Product Evaluation List (MPEL) for further evaluation on Maryland highways.

- When a new type of pavement marking material’s NTPEP results indicate it meets Maryland’s specifications
- When a material or manufacturer has been previously disqualified by MDSHA
- When a material with an application method that is not validated by NTPEP

Three geographic locations will be chosen. The Maryland evaluation will be completed after material has undergone a snowplow season.

Upon satisfactory completion of color, retro-reflectivity, durability, and lab evaluations, the material will be placed on the MDSHA Qualified Products List.

Material samples will be taken at the manufacturer’s facilities during periodic audits, and tested by MDSHA.

If components or the proportioning of the materials changes, the material will be withdrawn from Maryland’s QPL.

Maryland reserves the right to withdraw ANY approval or qualification if the material demonstrates poor performance. Maryland also reserves the right to extend the field evaluations.

QUALIFICATION REQUIREMENTS:

Lab Criteria – see Special Provisions Inserts and Designated Test

NTPEP Field Performance:

Waterborne Paint: (Non-durable)

Specifications: Lead-free, Fast Dry, 60-second no-track

Retro-reflectivity – When measured on NTPEP Northern test deck, outside of the wheel path on transverse lines or the skip line using a 30 – meter retro-reflectometer the minimum shall average:

INITIAL	FOUR MONTHS
*250 mcd/lux/sq./m. for white	*250 mcd/lux/sq./m. for white
*150 mcd/lux/sq./m. for yellow	*150 mcd/lux/sq./m. for yellow

Durability –

(on a scale of 0 – 10 with 10 being the best)

Color – Satisfactory comparison to a yellow chart or white chip.

(film loss) >6

***Note: Climatic changes alter NTPEP results from season to season. These minimum required numbers may change when Maryland analyzes the most recent NTPEP data for all candidate materials.**

NON-DURABLE MATERIALS

REMOVABLE (TEMPORARY) TAPE PROCEDURE:

All temporary tape materials must conform to the following:

The manufacturer places the candidate material on any test deck of The National Transportation Product Evaluation Program (NTPEP).

The NTPEP test results, both field and laboratory, are compared to Maryland's qualification requirements.

Upon satisfactory completion of color, retro-reflectivity, durability, and lab evaluations, the material will be placed on the MDSHA Qualified Products List.

Material samples will be taken at the manufacturer's facilities during periodic audits, and tested by MDSHA.

If components or the proportioning of the materials changes, the material will be withdrawn from Maryland's QPL.

Maryland reserves the right to withdraw ANY approval or qualification if the material demonstrates poor performance. Maryland also reserves the right to extend the field evaluations.

QUALIFICATION REQUIREMENTS:

Lab Criteria – see Special Provisions Inserts and Designated Test

NTPEP Field Performance:

Removable (Temporary) tapes: (Non-durable)

Retro-reflectivity – When measured on any NTPEP test deck, outside of the wheel path on transverse lines or the skip line using a 30 – meter retro-reflectometer the minimum shall average:

INITIAL	SIX MONTHS
*500 mcd/lux/sq./m. for white	*250 mcd/lux/sq./m. for white
*300 mcd/lux/sq./m. for yellow	*150 mcd/lux/sq./m. for yellow

Internal Strength (Removability) – < 3 (Using NTPEP longitudinal criteria: on a scale of 1 – 10 with 1 removed in one piece and 10 removed in fragments.)

Adhesive Bond -- < 6 (Using NTPEP longitudinal criteria: on a scale of 1 – 10 with 1 being easily removed and 10 could not be removed.)

Discernability -- < 3 (Using NTPEP longitudinal criteria: on a scale of 0 – 10 with 0 being no marking left on surface and 10 being 100% of marking left on surface.)

Color – Satisfactory comparison to a yellow chart or white chip.

***Note: Climatic changes alter NTPEP results from season to season. These minimum required numbers may change when Maryland analyzes the most recent NTPEP data for all candidate materials.**

**DURABLE SNOWPLOWABLE RAISED/RECESSED PAVEMENT MARKERS (RPM)
PROCEDURE:**

All raised/recessed pavement markers must conform to the following:

The manufacturer places the candidate marker on a **Northern** test deck of The National Transportation Product Evaluation Program (NTPEP).

The NTPEP test results, both field and laboratory, are compared to Maryland’s qualification requirements.

Markers must be submitted for placement through Maryland’s Product Evaluation List (MPEL) for further evaluation on Maryland highways.

- When a new type of raised/recessed pavement marker’s NTPEP results indicate it meets Maryland’s specifications
- When a marker or manufacturer has been previously disqualified by MDSHA
- When a marker with an application method that is not validated by NTPEP

Three geographic locations will be chosen. The Maryland evaluation will be completed after marker has undergone a snowplow season.

Upon satisfactory completion of testing, the marker will be placed on the MDSHA Qualified Products List.

Castings/Lenses will be taken at the manufacturer’s facilities during periodic audits, and tested by MDSHA.

If components of the materials change, the markers will be withdrawn from Maryland’s QPL.

Maryland reserves the right to withdraw ANY approval or qualification if the RPM demonstrates poor performance. Maryland also reserves the right to extend the field evaluations.

QUALIFICATION REQUIREMENTS:

Lab Criteria – see Special Provisions Inserts and Designated Tests

NTPEP Field Performance:

Snowplowable Raised Pavement Markers (durable casting type and durable recessed type):

	INITIAL	TWENTY-FOUR MONTHS
Castings	* 5 rating	* 5 rating
Lens Durability	* 5 rating	* 2.5 rating
Nighttime Visibility	* 5 rating	* 2.5 rating

Based on NTPEP criteria: on a scale of 0 – 5 with 5 being excellent, 3 being fair, and 0 being beyond use.

***Note: Climatic changes alter NTPEP results from season to season. These minimum required numbers may change when Maryland analyzes the most recent NTPEP data for all candidate materials.**

To Maintain Approval for Pavement Markings

Current products listed on the Qualified Products List (QPL) will remain approved, provided that formulation and test results have not changed or been altered from the original northern National Transportation Product Evaluation Program (NTPEP) Product ID submittal. It is strongly recommended, *regardless of previous approval*, that all materials be placed on the Northern NTPEP test deck every five (5) years.

Maryland reserves the right to withdraw any product from this list when unsatisfactory performance is exhibited or when test data becomes too old.

NOTE: In January before each striping season, manufacturers should supply MDSHA OMT with their current manufacturing products and the corresponding NTPEP codes. Keep in mind that for a pavement marking material to be evaluated, it must conform to the following:

- **Permanent Materials**-candidate material shall be placed on a Northern test deck of the National Transportation Product Evaluation Program (NTPEP) and have a minimum of 24 months of NTPEP field test results and installation data available for review.
- **Removable (Temporary) Materials** - candidate material shall be placed on any test deck of the National Transportation Product Evaluation Program (NTPEP) and have a minimum of 6 months of NTPEP field test results and installation data available for review.

Submissions may be sent to:

Maryland State Highway Administration
Office of Materials Technology
Pavement Marking Team
7450 Traffic Drive/Building #4
Hanover, MD 21076

**QUALIFIED PRODUCTS FOR
REMOVABLE (TEMPORARY TAPE) MARKING MATERIAL
 FOR MAINTENANCE OF TRAFFIC**

<u>Product I.D.</u>	<u>Approved Producer</u>	<u>Approved Color</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
Tape Series 780 Wet Reflective PMM2006MS-010	3M Corporation	White	HMA-PCC	2007
Tape Series 781 Wet Reflective PMM2006MS-011	3M Corporation	Yellow	HMA-PCC	2007
ATM 200 PMM2008PA-010	Advance Traffic Markings	White	HMA-PCC	2009
ATM 200 PMM2008PA-011	Advance Traffic Markings	Yellow	HMA-PCC	2009
100N PMM2008PA-001	Brite-Line Technologies	White	HMA-PCC	2009
100N PMM2008PA-003	Brite-Line Technologies	Yellow	HMA-PCC	2009
Director 2 PMM2008PA-030	Swarco	White	HMA-PCC	2009
Director 2 PMM2008PA-031	Swarco	Yellow	HMA-PCC	2009
Director 2 – WR** PMM2008PA-032	Swarco	White	HMA-PCC	Tentative
Director 2 – WR** PMM2008PA-033	Swarco	Yellow	HMA-PCC	Tentative

**Acceptance pending final approval upon satisfactory completion of testing.

**HMA – Hot Mix Asphalt
 PCC -- Portland Cement Concrete**

Maryland currently recognizes all HMA mixtures as a single category, but reserves the right to withdraw a material from this list when unsatisfactory performance is exhibited.

All tapes shall be applied according to the contract specifications and the manufacturer's recommendations.

NOTE: APPROVAL DATES ARE ESTIMATED TO FACILITATE THE UPDATING AND MERGING OF MDSHA-QPL DOCUMENTS

QUALIFIED PRODUCTS FOR PAVEMENT MARKING PAINT
NON-TOXIC LEAD-FREE WATERBORNE PAINT

Material will be inspected and/or tested by authorized SHA Lab personnel or authorized agency prior to delivery to job site. Material shall be accompanied by a Bill of Lading or Shipping Ticket stamped by an SHA – Office of Materials and Technology (OMT) Representative or authorized agency. Contractor is responsible to see that orders specify inspection prior to delivery. Project Engineer will verify inspection and/or testing of material with a tag or stamp prior to use.

<u>Product I.D.</u>	<u>Approved Producer</u>	<u>Approved Color</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
991023 PMM2005PA-029	Ennis Paint, Inc.	White	HMA-PCC	2009
BP19402 PMM2002PA-173	Sherwin Williams	White	HMA-PCC	2004
991028 PMM2005PA-034	Ennis Paint, Inc.	Yellow	HMA-PCC	2009
BP19407 PMM2002PA-178	Sherwin Williams	Yellow	HMA-PCC	2004

HMA – Hot Mix Asphalt

PCC – Portland Cement Concrete

Maryland currently recognizes all HMA mixtures as a single category, but reserves the right to withdraw a material from this list when unsatisfactory performance is exhibited.

NOTE: APPROVAL DATES ARE ESTIMATED TO FACILITATE THE UDATING AND MERGING OF MDSHA-QPL DOCUMENTS

QUALIFIED PRODUCTS FOR

PERMANENT PREFORMED PAVEMENT MARKING IN-LAID MATERIAL

When inlaid preformed pavement marking materials are used for the delineation of the final surface course, only those identified on the list below may be used on the pavement surfaces noted.

<u>Product I.D.</u>	<u>Approved Producer</u>	<u>Approved Color</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
Stamark High Performance Tape Series 380 PMM2002PA-003	3M Corporation	White	HMA-PCC	2005
Stamark High Performance Tape Series 381 PMM2002PA-004	3M Corporation	Yellow	HMA-PCC	2005

HMA – Hot Mix Asphalt

PCC – Portland Cement Concrete

Maryland currently recognizes all HMA mixtures as a single category, but reserves the right to withdraw a material from this list when unsatisfactory performance is exhibited.

All tapes shall be applied according to the contract specifications and the manufacturer’s recommendations.

NOTE: APPROVAL DATES ARE ESTIMATED TO FACILITATE THE UDATING AND MERGING OF MDSHA-QPL DOCUMENTS

QUALIFIED PRODUCTS FOR

PERMANENT PREFORMED PAVEMENT MARKING

SURFACE APPLIED MATERIAL

When preformed pavement marking materials are used for the delineation of the final surface course, only those identified on the list below may be used on the pavement surfaces noted.

<u>Product I.D.</u>	<u>Approved Producer</u>	<u>Approved Color</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
300 Durable STR-96-176-PA	Advance Traffic Markings	White	HMA-PCC	1996
300 Durable STR-96-177-PA	Advance Traffic Markings	Yellow	HMA-PCC	1996
Durable 5000CT PMM2005PA-012	Brite-line Technology	White	HMA-PCC	2009
Durable 5000CT PMM2005PA-013	Brite-line Technology	Yellow	HMA-PCC	2009
Director 60 STR-92-VPT-W-MD	Swarco	White	HMA-PCC	1992
Director 60 STR-92-VPT-Y-MD	Swarco	Yellow	HMA-PCC	1992
Stamark High Performance Tape Series 380 PMM2002PA-003	3M Corporation	White	HMA-PCC	2005
Stamark High Performance Tape Series 381 PMM2002PA-004	3M Corporation	Yellow	HMA-PCC	2005

HMA – Hot Mix Asphalt
PCC – Portland Cement Concrete

Maryland currently recognizes all HMA mixtures as a single category, but reserves the right to withdraw a material from this list when unsatisfactory performance is exhibited.

All tapes shall be applied according to the contract specifications and the manufacturer’s recommendations.

NOTE: APPROVAL DATES ARE ESTIMATED TO FACILITATE THE UPDATING AND MERGING OF MDSHA-QPL DOCUMENTS

QUALIFIED PRODUCTS FOR

PERMANENT PREFORMED PAVEMENT MARKING CONTRAST TAPE

When preformed pavement marking materials are used for the delineation of the final surface course, only those identified on the list below may be used on the pavement surfaces noted.

<u>Product I.D.</u>	<u>Approved Producer</u>	<u>Approved Color</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
Stamark Tape Series 380 PMM2002PA-003	3M Corporation	Contrast/White*	HMA-PCC	2005
Stamark Tape Series 381 PMM2002PA-004	3M Corporation	Contrast/Yellow*	HMA-PCC	2005
300C Contrast** PMM2008PA-155	Advance Traffic Markings	Contrast/White	HMA-PCC	Tentative

**Acceptance pending final approval upon satisfactory completion of testing through NTPEP.

HMA – Hot Mix Asphalt
PCC – Portland Cement Concrete

Maryland currently recognizes all HMA mixtures as a single category, but reserves the right to withdraw a material from this list when unsatisfactory performance is exhibited.

All tapes shall be applied according to the contract specifications and the manufacturer's recommendations.

***Black edge portion of contrast tape color has been tested and approved. See Blackout QPL Section 104.11 of OOT section of this QPL.**

NOTE: APPROVAL DATES ARE ESTIMATED TO FACILITATE THE UDATING AND MERGING OF MDSHA-QPL DOCUMENTS

QUALIFIED PRODUCTS FOR

LEAD-FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING MATERIALS

Material will be inspected and/or tested by authorized SHA Lab personnel or authorized agency prior to delivery to job site. Material shall be accompanied by a Bill of Lading or Shipping Ticket stamped by an SHA – Office of Materials Technology (OMT) Representative or authorized agency. Contractor is responsible to see that orders specify inspection prior to delivery. Project Engineer will verify inspection and/or testing of material with a tag or stamp prior to use.

<u>Product I.D. NTPEP Code</u>	<u>Approved Producer</u>	<u>Approved Color</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
Smart Mark 500 PMM2005PA-014	Dobco/ Sherwin Williams	White	HMA-PCC	2007
885625 PMM2005PA-023	Ennis Paint, Inc.	White	HMA-PCC	2007
Swarcotherm-WA-2 PMM2005PA-074	Swarco Industries	White	HMA-PCC	2007
Tuffline White Alkyd PMM2002PA-024	Crown Technology II, LLC	White	HMA-PCC	2005
Kwikline White Alkyd PMM2002PA-028	Crown Technology II, LLC	White	HMA-PCC	2005
Dobco Alkyd PMM2002PA-030	Dobco Sherwin Williams	White	HMA-PCC	2005
Swarcotherm-Alkyd PMM2002PA-201	Swarco Industries	White	HMA-PCC	2005
Smart Mark 500 PMM2005PA-016	Dobco/ Sherwin Williams	Yellow	HMA-PCC	2007
885629 PMM2005PA-027	Ennis Paint, Inc.	Yellow	HMA-PCC	2007
Ecotherm PMM2002PA-238	Crown Technology II, LLC	Yellow	HMA-PCC	2005
Kwikline Yellow Alkyd PMM2002PA-239	Crown Technology II, LLC	Yellow	HMA-PCC	2005
Dobco Alkyd PMM2002PA-031	Dobco/ Sherwin Williams	Yellow	HMA-PCC	2005
Lead-free 1 PMM2002PA-034	Dobco/ Sherwin Williams	Yellow	HMA-PCC	2005
Lead-free 2 PMM2002PA-035	Dobco/ Sherwin Williams	Yellow	HMA-PCC	2005

Maryland currently recognizes all HMA mixtures as a single category, but reserves the right to withdraw a material from this list when unsatisfactory performance is exhibited.

NOTE: APPROVAL DATES ARE ESTIMATED TO FACILITATE THE UPDATING AND MERGING OF MDSHA-QPL DOCUMENTS

QUALIFIED PRODUCTS FOR

PREFORMED THERMOPLASTIC PAVEMENT MARKINGS

“Preheat Application” where HMA/PCC surfaces are preheated to approximately 300°F before installation of preformed thermoplastic

“Non-preheat Application” where HMA/PCC surfaces are not required to be preheated before installation of preformed thermoplastic

When preformed pavement marking materials are used for delineation of the final surface course, only those identified on the list below may be used on the pavement surfaces.

<u>Product I.D.</u>	<u>Approved Producer</u>	<u>Approved Color</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
PreMark®Plus PMM2005PA-042 “Non-preheat Application”	Flint Trading, Inc.	White	HMA-PCC	2007
PreMark®Plus PMM2002PA-065 “Non-preheat Application”	Flint Trading, Inc.	Yellow	HMA-PCC	2005
LRM2002WPT1-33 Thermaline 90 Mills PMM2002PA-112 “Non-preheat Application”	Ennis Paint, Inc.	White	HMA	2005
Flame Tape Millennium PMM2002PA-050 “Non-preheat Application”	Ennis Paint, Inc.	White	HMA	2005

HMA – Hot Mix Asphalt
PCC – Portland Cement Concrete

Maryland currently recognizes all HMA mixtures as a single category, but reserves the right to withdraw a material from this list when unsatisfactory performance is exhibited.

NOTE: APPROVAL DATES ARE ESTIMATED TO FACILITATE THE UPDATING AND MERGING OF MDSHA-QPL DOCUMENTS

QUALIFIED PRODUCTS FOR

EPOXY PAVEMENT MARKING MATERIAL

Material will be inspected and/or tested by authorized SHA Lab personnel or authorized agency prior to delivery to job site. Material shall be accompanied by a Bill of Lading or Shipping Ticket stamped by an SHA – Office of Materials and Technology (OMT) Representative or authorized agency. Contractor is responsible to see that orders specify inspection prior to delivery. Project Engineer will verify inspection and/or testing of material with a tag or stamp prior to use.

When epoxy pavement marking materials are used for delineation of the final surface course, only those identified on the list below may be used on the pavement surfaces.

<u>Product I.D.</u>	<u>Approved Producer</u>	<u>Approved Color</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
*LS-50 PMM2002PA-052	Epoplex	White	HMA/PCC	Tentative
*LS-50 PMM2002PA-053	Epoplex	Yellow	HMA/PCC	Tentative

*Acceptance pending final approval upon satisfactory completion of testing through MPEL and MDSHA Laboratory results.

HMA – Hot Mix Asphalt
PCC – Portland Cement Concrete

Maryland currently recognizes all HMA mixtures as a single category, but reserves the right to withdraw a material from this list when unsatisfactory performance is exhibited.

NOTE: APPROVAL DATES ARE ESTIMATED TO FACILITATE THE UDATING AND MERGING OF MDSHA-QPL DOCUMENTS

QUALIFIED PRODUCTS FOR

SNOW PLOWABLE RAISED PAVEMENT REFLECTOR CASTINGS

<u>Casting Model I.D.</u>	<u>Approved Producer</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
Stimsonite Model 96 RPM (05-OH)-03	Ennis Paint, Inc.	HMA-PCC	2006
Stimsonite Model 101 LP RPM (04-OH)-03	Ennis Paint, Inc.	HMA-PCC	2006
Stimsonite Model 101 LPS	Ennis Paint, Inc.	HMA-PCC	2006
Ironstar 664 Housing	Ray-O-Lite	HMA-PCC	2006
Model H 1010 RPM (04-OH)-04	Hallen Products, Ltd	HMA-PCC	2006

RECESSED REFLECTOR LENSES

<u>Lens Model I.D.</u>	<u>Approved Producer</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
Stimsonite Model 948	Ennis Paint, Inc.	HMA-PCC	2006
3M Series 190 Marker RPM (05-OH)-02	3M Corporation	HMA-PCC	2006

SNOWPLOWABLE RAISED PAVEMENT REFLECTOR LENSES (SRPM)

<u>Lens Model I.D.</u>	<u>Approved Producer</u>	<u>Approved Pavement</u>	<u>Approved Date</u>
3M Series 190 Marker RPM (05-OH)-02	3M Corporation	HMA-PCC	2006
Ennis/Stimsonite Model C40 (v) RPM (04-OH)-03	Ennis Paint, Inc.	HMA-PCC	2006
Ennis/Stimsonite Model C40 (d) RPM (04-OH)-02	Ennis Paint, Inc.	HMA-PCC	2006
Ennis Model 944	Ennis Paint, Inc.	HMA-PCC	2006

Lenses that are manufactured exclusively for recessed pavement markers are not permitted as substitutes for SRPM reflector lenses.

Lenses that are manufactured exclusively for SRPM pavement markers are not permitted as substitutes for recessed marker reflector lenses.

NOTE: APPROVAL DATES ARE ESTIMATED TO FACILITATE THE UPDATING AND MERGING OF MDSHA-QPL DOCUMENTS