

COATINGS MANUAL

HRSD

5.0 STANDARD HRSD COATING SYSTEMS

There are thirty-six (36) Standard HRSD Coating Systems that cover all typical substrates that will require coatings throughout the wastewater treatment plants, pump stations, other collection system structures, and other HRSD Facilities. The systems include coatings for new construction, touch-up coating work, and recoating of structures previously coated. The Standard Systems are described on the pages that follow.

The same Standard Coating System Identification Code applies to the Coating System Guidelines (see Section 8.0 of this Manual) and to the Coating Systems listed in Section 7 – Standard HRSD Coating Specifications.

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COATING SYSTEM ID: **A-1**

SUBSTRATE(S): Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Alkyd

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carbocoat 115	N/A	Carbocoat 45
ICI Paints Devoe High Performance Coatings	N/A	Devguard 4100	N/A	Speed Enamel 4318
PPG		7-852 PPG Primer	N/A	7-282 Alkyd Enamel
Sherwin Williams	N/A	B50 Series Univ. Primer	N/A	B54 Ind. Enamel
Tnemec	N/A	Series 10	N/A	Series 1029

For Interior or Exterior – Two Coat – Alkyd Coating System for Maintenance Coating Painting of Piping or Structural Steel – Carbon Steel or Ductile Iron. For non-immersed, non-corrosive environments.

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COATING SYSTEM ID: **E-1**

SUBSTRATE(S): Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Amidoamine or Polyamide Epoxy

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carboguard 888	N/A	Carboguard 561
ICI Paints Devco High Performance Coatings	N/A	Devran 223/224HS	N/A	Devran 224HS semi- gloss or 724 gloss
PPG	N/A	Pitt-Guard 97-145	N/A	Pitt-Guard 97-145
Tnemec	N/A	Series N69	N/A	Series N69
Sherwin Williams	N/A	Macropoxy 646 B58-600	N/A	Macropoxy 646 B58-600
Sauereisen	N/A	Conoweld No. 501	N/A	Conoglaze No. 201
Induron	N/A	PE-70	N/A	PE-70 or Induraguard SG Epoxy

For interior – two coat – polyamide or amidoamine epoxy coating system for coating of carbon steel and other ferrous metals. For non-immersed, mildly corrosive splash/spill – wet environments or immersed.

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COATING SYSTEM ID: **E-1-G**

SUBSTRATE(S): Galvanized Carbon Steel

SYSTEM GENERIC DESCRIPTION: Amidoamine or Polyamide Epoxy

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Galvaseal WB	N/A	Carboguard 561
ICI Paints Devco High Performance Coatings	N/A	Devran 223/224HS	N/A	Devran 224HS semi- gloss or 724 gloss
PPG	N/A	Pitt-Guard 97-145	N/A	Pitt-Guard 97-145
Tnemec	N/A	Series 27	N/A	Series N69
Sherwin Williams	N/A	Macropoxy 646 B58-600	N/A	Macropoxy 646 B58-600
Sauereisen	N/A	Conoweld No. 501	N/A	Conoglaze No. 201
Induron *	N/A	PE-70	N/A	PE-70 or Induraguard SG Epoxy

*Suggest galvanized surface be brush blasted

For Interior – two coat epoxy coating system for Maintenance Coating of galvanized carbon steel. For non-immersed, mildly corrosive, splash/spill – wet environments.

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COATING SYSTEM ID: **E-1-NF**

SUBSTRATE(S): Non-Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Amidoamine or Polyamide Epoxy

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carbacrylic 120	N/A	Carboguard 561
ICI Paints Devco High Performance Coatings	N/A	Devran 223/224HS	N/A	Devran 224HS semi- gloss or 724 gloss
PPG	N/A	Pitt-Guard 97-145	N/A	Pitt-Guard 97-145
Tnemec	N/A	Series 27	N/A	Series N69
Sherwin Williams	N/A	Macropoxy 646 B67-600	N/A	Macropoxy 646 B67-600
Sauereisen	N/A	Conoweld No. 501	N/A	Conoglaze No. 201
Induron	N/A	Induranastic 85	N/A	PE-70 or Induraguard SG Epoxy

For Interior – two coat epoxy coating system for Maintenance Coating of non-ferrous metals.
For non-immersed, mildly corrosive, splash/spill – wet environments or for buried piping in non-aggressive soils.

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COATING SYSTEM ID: **E-2-C**

SUBSTRATE(S): CMU or Concrete

SYSTEM GENERIC DESCRIPTION: Amidoamine or Polyamide Epoxy

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	Carboguard 501	Carboguard 888	N/A	Carboguard 890
ICI Paints Devoe High Performance Coatings	Tru-Glaze WB 4015	Devran 223/224HS	N/A	Devran 223/224HS or 724 gloss
PPG	Aquapon 97-685	Pitt-Guard 97-145	N/A	Pitt-Guard 97-145
Tnemec	Series 130	Series N69	N/A	Series N69
Sherwin Williams	Kem Cati-Coat HS B42W400/V401	Macropoxy 646 B67-600 Series	N/A	Macropoxy 646 B67-600 Series
Sauereisen	Epoxy Filler No. 209	Conoweld No. 501	N/A	Conoglaze No. 201

For Interior – Two Coat Coating System with Filler/Surfacer for Maintenance Coating Work over CMU or Concrete. For non-immersed, mildly corrosive, and wet splash/spill conditions below grade, buried.

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COATING SYSTEM ID: **E-3**

SUBSTRATE(S): Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Aluminum Filled Epoxy Mastic

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carbomastic 15 and 15 F.C.	N/A	Carbomastic 15 and 15 F.C.
ICI Paints Devoe High Performance Coatings	N/A	Bar-Rust 231 (231K 9100)	N/A	Bar-Rust 231 (231K 9100)
PPG	N/A	Amerlock 400AL	N/A	Amerlock 400AL
Tnemec	N/A	Series 135- 1243	N/A	Series 135- 1243
Sherwin Williams	N/A	Epoxy Mastic II B62S-100	N/A	Epoxy Mastic II B62S-100

For Interior – two coat aluminum filled epoxy mastic maintenance coating for ferrous metal substrates. For non-immersion, mildly corrosive or non-corrosive environments – where only minimal surface preparation can be performed.

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COATING SYSTEM ID: **E-3-NF**

SUBSTRATE(S): Non-Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Aluminum Filled Epoxy Mastic

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carbomastic 15 and 15 F.C.	N/A	Carbomastic 15 and 15 F.C.
ICI Paints Devoe High Performance Coatings	N/A	Bar-Rust 231 (231K 9100)	N/A	Bar-Rust 231 (231K 9100)
PPG	N/A	Amerlock 400AL	N/A	Amerlock 400AL
Tnemec	N/A	Series 135- 1243	N/A	Series 135- 1243
Sherwin Williams	N/A	Epoxy Mastic II B62S-100	N/A	Epoxy Mastic II B62S-100

For Interior – two coat aluminum filled epoxy mastic maintenance coating for non-ferrous metal substrates. For non-immersion, mildly corrosive or non-corrosive environments – where only minimal surface preparation can be performed.

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COATING SYSTEM ID: **E-4**

SUBSTRATE(S): Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Cycloaliphatic Amine Epoxy

MANUFACTURER	PRIMER COAT (for non-immersion only)	INTER- MEDIATE COAT	FINISH COAT
Carboline	Carbozinc 859	Carboguard 890	Carboguard 890
ICI Paints Devco High Performance Coatings	Catha-Coat 315	Bar Rust 231	Bar Rust 231
PPG	Amercoat 68MCZ	Amercoat 235	Amercoat 235
Tnemec	Series 90-97	Series 104	Series 104
Sherwin Williams	Zinc Clad IV or III	Duraplate 235 B67-235	Duraplate 235 B67-235
Sauereisen	Primer No. 560 with 561 zinc additive	Conoglaze No. 202	Conoglaze No. 202
Induron	Indura Zinc MC67	Cermasafe 90 @ 10-15 mils *	Cermasafe 90 @ 10-15 mils *

For Interior or otherwise not exposed to sunlight – three coat epoxy coating system for ferrous metals. This E-4 system can be used for Sodium Hydroxide Secondary Containment. For corrosive environments including immersion or non-immersion. Primer used for non-immersion applications only. For immersion applications, apply intermediate and finish coats only.

*or may be applied at 30 mils in one coat.

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COATING SYSTEM ID: **E-4-C**

SUBSTRATE(S): Concrete or CMU

SYSTEM GENERIC DESCRIPTION: Cycloaliphatic Amine Epoxy

MANUFACTURER	FILLER/ SURFACER (FOR CONCRETE ONLY)	INTER- MEDIATE COAT	FINISH COAT
Carboline	Sanitile 600	Carboguard 890	Carboguard 890
ICI Paints Devoe High Performance Coatings	Devfil 145	Bar Rust 231	Bar Rust 231
PPG	Pitt-Glaze 16-90	97-160	97-160
Tnemec	Series 218	Series 104	Series 104
Sherwin Williams	Cement Plex 875	Duraplate 235 B67-235	Duraplate 235 B67-235
Sauereisen	F120	Conoglaze No. 202	Conoglaze No. 202
Induron	Aquatapoxy	N/A	Permasafe 100 Ceramic Epoxy

For interior or exterior secondary containment (coating will chalk in exterior exposure) – two coat epoxy coating system plus filler/surfacer for concrete or CMU. No primer required for concrete or CMU. If extensive cracking is present, use coating system FP-2. If only some cracking present, use E-4 with detail crack treatment as recommended by the CSM. This E-4 system can be used for Sodium Hydroxide Secondary Containment. For corrosive environments including immersion or non-immersion.

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COATING SYSTEM ID: **E-5**

SUBSTRATE(S): Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Amine Cured Epoxy

MANUFACTURER	PRIMER COAT	INTER-MEDIATE COAT	FINISH COAT
Carboline	N/A	Plasite 4500S	Plasite 4500S
Sauereisen	N/A	Sewergard 210S or 210G	Sewergard 210S or 210G
Tnemec	N/A	Series 435 Perm-Glaze	Series 435 Perm-Glaze
Sherwin Williams	N/A	Cor-Cote SC	Cor-Cote SC
Induron	N/A	Permasafe 100 Ceramic Epoxy	Permasafe 100 Ceramic Epoxy
PPG	Amercoat 100A	Novaguard 840	Novaguard 840

For Headspaces – two coat epoxy lining system for headspaces exposed to high H₂S and biogenic sulfide corrosion. For ferrous metal substrates. For headspace environments where H₂S gas concentrations are 150 ppm or lower.

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COATING SYSTEM ID: **E-5-C**

SUBSTRATE(S): Concrete Substrates Only

SYSTEM GENERIC DESCRIPTION: Amine Cured Epoxy

MANUFACTURER	FILLER/ SURFACER FOR CONCRETE ONLY	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	Sanitile 600 TG (for concrete only)	N/A	Plasite 4500S	Plasite 4500S
Sauereisen	No. 209 or F-120 F5	N/A	Sewergard 210S or 210G (S-spray) (G-roller)	Sewergard 210S or 210G
Tnemec	Series 218 Mortar clad (spray or troweled)	434 Derma- Shield (trowel applied)	Series 435 Perm-Glaze	Series 435 Perm-Glaze
Sherwin Williams	N/A	N/A	Cor-cote SC	Cor-Cote SC
Induron	Aquata Poxy	Permasafe 100 Ceramic Epoxy	N/A	Permasafe 100 Ceramic Epoxy
PPG	Amercoat 100A	N/A	Novaguard 840	Novaguard 840

For Headspaces or Immersed – two coat epoxy lining system for headspaces exposed to high H₂S and biogenic sulfide corrosion. For concrete substrates. The filler/surfacers are used for concrete only as indicated above. For headspace environments where H₂S gas concentrations are 150 ppm or lower plus 1’-0” below low water level. If the concrete has actively moving cracks in it, treat cracks following the CSM’s recommendations or use Standard Coating System FP-2. Use for vertical, horizontal, or overhead surfaces: For all surfaces for new work and for overhead surfaces only over filler/surfacer in conjunction with E-6 for retrofit applications.

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COATING SYSTEM ID: **E-6**

SUBSTRATE(S): Concrete

SYSTEM GENERIC DESCRIPTION: Amine Cured Epoxy

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	Sanitile 600	N/A	N/A	Plasite 5371
Sauereisen	F-120	N/A	N/A	Sewergard 210T
Tnemec	Series 218	N/A	N/A	Series 434
PPG	Amercoat 100A	N/A	N/A	Novaguard 840

For Headspace – one coat epoxy lining system (trowel applied) over a filler/surfacer for concrete headspaces exposed to high H₂S and biogenic sulfide corrosion. For concrete substrates. For headspace environments for vertical or horizontal surfaces (not overhead – use E-5). Use where H₂S gas concentrations are 150 ppm or less and 1'-0" below low water level. If the concrete has actively moving cracks in it, treat cracks following the CSU's recommendations or use Standard Coating System FP-2.

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COATING SYSTEM ID: **EF-1**

SUBSTRATE(S): Concrete

SYSTEM GENERIC DESCRIPTION: Epoxy

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Stonhard	N/A	Stonhard Standard Primer	Stonshield undercoat and broadcast	Stonshield sealer
Tnemec	N/A	Series 238	Series 238 w/Broadcast	Series 284 Clear
Sherwin Williams	N/A	Corobond 100	Corobond 100	Cor-Cote HP
Carboline	N/A	Flowprine 900	Flowquartz 920 with Broadcast	Flowquartz 920
Sauereisen	N/A	501 Conweld Primer	#201 SL Self- Leveling Epoxy	#310 Conothane Polyurethane

For Interior - Epoxy Flooring System for Light Duty Applications – light wheeled traffic, mostly foot traffic, and mildly corrosive. Mainly for wear resistance, aesthetics, and cleanability. Non slip texture can be varied depending on wetness of exposure. Test patches to be installed for deciding on level of non-slip texture.

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COATING SYSTEM ID: **EF-2**

SUBSTRATE(S): Concrete

SYSTEM GENERIC DESCRIPTION: Epoxy

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Stonhard	N/A	Stonhard Standard Primer	Stonclad GS	Stonkote GS-4
Tnemec	N/A	Series 238 Primer	Series 238	Series 280
Sherwin Williams	N/A	3579	TPM115	3505
Carboline	N/A	Flowprine 900	Flowtex 942TG	Flowtex Grout Coat

For Interior - Epoxy Flooring System for Heavier Duty Exposure Applications. Frequent heavier wheeled traffic and mildly corrosive conditions. Mainly for wear resistance, impact resistance, aesthetics, and cleanability. Nonslip texture can be varied as needed.

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COATING SYSTEM ID: **EU-1**

SUBSTRATE(S): Ferrous Metal

SYSTEM GENERIC DESCRIPTION: Epoxy Urethane

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carboguard 888	Carboguard 890	Carbothane 133 HB
ICI Paints Devoe High Performance Coatings	N/A	Devran 223/224	Devran 233 or 224HS	Devthane 389
PPG	N/A	Pittguard 97-145	Pittguard 97-145	Pitthane ultra 95-812
Sherwin Williams	N/A	Macropoxy 646 B58-600	Macropoxy 646 B58-600	Hi-Solids Polyurethane B65-300
Tnemec	N/A	Series N69	Series N69	Series 73
Induron	N/A	E-Bond 100 @ 1 mil DFT	Induraguard SG Epoxy @ 4-6 mils DFT	Indurathane 6600 Plus

For Exterior – three coat epoxy – epoxy-polyurethane coating system for ferrous metal substrates – for weathering exposure only. Primarily used for touch-up coating work of existing epoxy – urethane coating systems.

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COATING SYSTEM ID: **EU-1-FRP**

SUBSTRATE(S): Fiberglass Reinforced Plastic

SYSTEM GENERIC DESCRIPTION: Epoxy Urethane

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carboacrylic 120		Carbothane 133 HB
ICI Paints Devoe High Performance Coatings	N/A	Devran 223/224		Devthane 389
PPG	N/A	Pittguard 97- 145		Pitthane ultra 95-812
Sherwin Williams	N/A	Macropoxy 646		B65-300
Tnemec	N/A	Series V27		Series 73
Sauereisen	N/A	Conoweld Primer		#310 Conothane Polyurethane
Induron	N/A	Induraguard SG Epoxy		Indurathane 6600 Plus

For Exterior - two coat primer – polyurethane coating system for fiberglass reinforced plastic substrates exposed to weathering only. Also, good for mild chemical exposure conditions.

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COATING SYSTEM ID: **EU-1-G**

SUBSTRATE(S): Galvanized Carbon Steel

SYSTEM GENERIC DESCRIPTION: Epoxy Urethane

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Galvaseal WB	Carboguard 890	Carbothane 133 HB
ICI Paints Devoe High Performance Coatings	N/A	Devran 223/224	Devran 233 or 224HS	Devthane 389
PPG	N/A	Pittguard 97-145	Pittguard 97-145	Pitthane ultra 95-812
Sherwin Williams	N/A	Macropoxy 646	Macropoxy 646	B65-300
Tnemec	N/A	Series N69	Series N69	Series 73
Induron	N/A	E-Bond 100 @ 1 mil DFT	E-Bond 100 @ 1 mil DFT	Indurathane 6600 Plus

For Exterior – three coat epoxy – epoxy-polyurethane coating system for galvanized carbon steel substrates for weathering exposure or mildly corrosive, wet conditions where pH is above 3.0.

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COATING SYSTEM ID: **EU-1-NF**

SUBSTRATE(S): Non-Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Epoxy Urethane

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carbocyclic 120	Carboguard 890	Carbothane 133 HB
ICI Paints Devoe High Performance Coatings	N/A	Devran 223/224	Devran 233 or 224HS	Devthane 389
PPG	N/A	Pittguard 97- 145	Pittguard 97-145	Pitthane ultra 95-812
Sherwin Williams	N/A	Macropoxy 646	Macropoxy 646	B65-300
Tnemec	N/A	Series 27	Series N69	Series 73
Sauereisen	N/A	#501 Conoweld Primer	#201 Epoxy	#310 Conothane Polyurethane
Induron	N/A	Induraguard SG Epoxy	Induraguard SG Epoxy	Indurathane 6600 Plus

For Exterior – epoxy primer, epoxy intermediate coat, polyurethane topcoat coating system for non-ferrous metal substrates for weathering exposure and mildly corrosive conditions.

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COATING SYSTEM ID: **EU-2**

SUBSTRATE(S): Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Zinc-Epoxy-Urethane

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carbozinc 859	Carboguard 890	Carbothane 133 HB
ICI Paints Devoe High Performance Coatings	N/A	Catha-coat 315	Devran 233 or 224HS	Devthane 389
PPG	N/A	Durethane 97-699	Pittguard 97-145	Pitthane ultra 95-812
Sherwin Williams	N/A	Zinc Clad IV or Zinc-Clad III	Macropoxy 646 B58-600	Hi-Solids Polyurethane B65-300
Tnemec	N/A	Series 90-97	Series N69	Series 73
Induron	N/A	Indurazinc MC 67	Induraguard SG Epoxy	Indurathane 6600 Plus

For Exterior – three coat zinc rich primer, epoxy, polyurethane coating system for ferrous metal substrates for weathering exposure and mildly corrosive conditions.

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HAMPTON ROADS SANITATION DISTRICT

COATING SYSTEM ID: **FP-2**

SUBSTRATE(S): Concrete

SYSTEM GENERIC DESCRIPTION: Flexible Polyurethane

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	Sanitile 600	Phenoline 311	Polibrid 705	Polibrid 705
Tnemec	Series 218	Series 201	Series 406	Series 406
ICI Paints Devoe High Performance Coatings	320 Gel	Ultraline 371	Futura 528	Futura 528
Sherwin Williams	Cemtec Silate MSM	Envirolastic LT	N/A	Sherflex Elastomer Polyurethane
PPG	N/A	Amerlock Sealer or Amercoat 370	Amerthane 490	Amerthane 490

For Interior or Exterior – three coat – epoxy – flexible polyurethane – flexible polyurethane lining system for concrete substrates exposed to corrosive H₂S headspace conditions up to 150 ppm H₂S gas or less and/or where crack bridging capability of lining is needed, Is not intended to bridge excessive crack movement or expansion joints in concrete. Refer to Appendix E for more information on excessive cracking. The filler/surfacer is generally required to fill bugholes and air voids or to smooth out rough areas in the concrete to receive the lining system. Can be used for Sodium Hydroxide or ferric chloride Secondary Containment Areas where crack movement needs to be bridged.

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COATING SYSTEM ID: **FP-3**

SUBSTRATE(S): Concrete

SYSTEM GENERIC DESCRIPTION: Flexible Polyurethane

MANUFACTURER	PRIMER COAT	BASE COAT	INTER-MEDIATE COAT	FINISH COAT
Tremco	191	350	345	346
TAMMS	Flexdeck Primer	Flexdeck Membrane	N/A	Flexdeck Tie Coat
3M	ScotchClad Primer	ScotchClad Base Coat 5893	ScotchClad 5768LO	ScotchClad 5891LO

For Exterior - flexible polyurethane deck coating for concrete substrates to prevent freeze-thaw damage, water infiltration, etc. Used on tank or building roofs, walkways, stairs, etc. Not meant to be corrosion resistant.

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COATING SYSTEM ID: **HT-1**
Metals

SUBSTRATE(S): Ferrous or Non-Ferrous

SYSTEM GENERIC DESCRIPTION: Silicone

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Dampney Company, Inc.	N/A	Thermalox 260 VC	N/A	Thermalox 260 VC
PPG Effective 3/1/12	N/A	500V	N/A	500V

For Interior or Exterior - two coat heat resistant silicone coating system for ferrous metals and non-ferrous metals (comes in colors) – (up to 500°F).

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COATING SYSTEM ID: **HT-2**

SUBSTRATE(S): Ferrous Metals or Non-Ferrous

SYSTEM GENERIC DESCRIPTION: Silicone

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Dampney Company, Inc.	N/A	Thermalox 245 Primer	N/A	Thermalox 280 Aluminum
PPG Effective 3/1/12	N/A	1027	N/A	1000V

For Interior or Exterior - two coat high temperature resistant silicone coating (aluminum filled) for ferrous or non-ferrous metals – (from 500 to 1200°F).

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COATING SYSTEM ID: **L-1**

SUBSTRATE(S): Plaster, CMU or Sheetrock

SYSTEM GENERIC DESCRIPTION: Acrylic Latex

MANUFACTURER	FILLER/ SURFACER FOR CMU ONLY	PRIMER COAT FOR PLASTER, CMU, OR SHEETROCK	INTER- MEDIATE COAT	FINISH COAT
Carboline	Sanitile 100	Carbocrylic 120	N/A	Carbocrylic 3359
ICI Paints Devoe High Performance Coatings	BloxFil 4000	Devflex 4206QD or 4216HP	N/A	Devflex 4206QD or 4216HP
PPG	PittGlaze Acrylic Block Filler 90-712	PittTech DTM Acrylic Primer 90-712	N/A	PittTech DTM Acrylic Satin 90-474
Tnemec	Series 130	Series 6	N/A	Series 6
Sherwin Williams	Block Filler B42KW00046 Heavy Duty Acrylic Block Filler	DTM B66 Series	N/A	DTM B66 Series
Induron	AC 220 Acrylic Block Filler	AC 210 Acrylic Primer	N/A	AC230 or AC240

For Interior - Acrylic Latex Coating System for plaster, CMU, or sheetrock substrates. Can be used over cloth covering for insulation also.

Note: Block Fillers/Surfacers are to be used for CMU Substrates only. System is for cleanability and aesthetics only.

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COATING SYSTEM ID: **L-1-W**

SUBSTRATE(S): Wood substrates only

SYSTEM GENERIC DESCRIPTION: Acrylic Latex

MANUFACTURER	PRIMER COAT FOR WOOD	INTER- MEDIATE COAT	FINISH COAT
Carboline	Carboyclic 120	N/A	Carboyclic 3359
ICI Paints Devoe High Performance Coatings	Devflex 4206QD or 4216HP	N/A	Devflex 4206QD or 4216HP
PPG	PPG 17-921	N/A	PittTech DTM Acrylic Satin 90-474
Tnemec	Series 151	N/A	Series 6
Sherwin Williams	DTM B66 Series	N/A	DTM B66 Series
Induron	AC 210 Acrylic Primer	N/A	AC230 or AC240 or Aquanaut II

For Interior - Acrylic Latex Coating System for substrates.

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COATING SYSTEM ID: L-2

SUBSTRATE(S): CMU or Concrete

SYSTEM GENERIC DESCRIPTION: Acrylic Latex

MANUFACTURER	FILLER/ SURFACER (FOR CONCRETE OR MASONRY ONLY)	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	Sanitile 600	Carbocylic 120	N/A	Carbocylic 3359
ICI Paints Devoe High Performance Coatings	Tru-Glaze WB 4015	Devflex 4206QD or 4020PF	N/A	Devflex 4206QD or 4208QD
PPG	Pitt-Glaze Acrylic Block Filler 16-90	PittTech DTM Acrylic Satin 90-474	N/A	PittTech DTM Acrylic Satin 90-474
Tnemec	Series 218	Series 6	N/A	Series 1028/1029
Sherwin Williams	Cement Plex875	DTM B66 Series	N/A	DTM B66 Series
Induron	AC220 Acrylic Block Filler	AC210 Acrylic Primer	N/A	AC230 or AC240 or Aquanaut II

For Exterior CMU or Concrete - Two Coat Acrylic Latex Coating System. This system could also be applied over the cloth covering for insulation. Note: Block Filler/Surfacers are to be used for CMU or Concrete substrates only.

**COATINGS MANUAL
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COATING SYSTEM ID: **L-2-W**

SUBSTRATE(S): Wood Substrates Only

SYSTEM GENERIC DESCRIPTION: Acrylic Latex

MANUFACTURER	PRIMER COAT	INTER-MEDIATE COAT	FINISH COAT
Carboline	Carbocyclic 120	N/A	Carbocyclic 3359
ICI Paints Devoe High Performance Coatings	Devflex 4206QD or 4020PF	N/A	Devflex 4206QD or 4208QD
PPG	PPG 17-921 Seal Grip	N/A	PittTech DTM Acrylic Satin 90-474
Tnemec	Series 151	N/A	Series 1028/1029
Sherwin Williams	DTM B66 Series	N/A	DTM B66 Series
Induron	AC210 Acrylic Primer	N/A	Aquanaut II

For Exterior Wood Only - Two Coat Acrylic Latex Coating System.

**COATINGS MANUAL
HRSD**

COATING SYSTEM ID: **L-3**

SUBSTRATE(S): Ferrous or Non-Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Acrylic

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Carbocylic 3359 DTM	N/A	Carbocylic 3359 DTM
ICI Paints Devoe High Performance Coatings	N/A	Devflex 4020 or 659DTM	N/A	Devflex 4020 or 659DTM
PPG	N/A	Pitt-Tech 90-712	N/A	Pitt-Tech 90- 474
Tnemec	N/A	Series 115	N/A	Series 1028/1029
Sherwin Williams	N/A	DTM B66 Series	N/A	DTM B66 Series
Induron	N/A	Aquanaut Acrylic Tan Primer	N/A	Aquanaut II

For Interior or Exterior – Direct to Metal - Two Coat Acrylic Coating System for Non-Ferrous or Ferrous Metals, non-corrosive conditions weathering exposure only.

**COATINGS MANUAL
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COATING SYSTEM ID: **L-4**

SUBSTRATE(S): Concrete, CMU or Concrete Block

SYSTEM GENERIC DESCRIPTION: Elastomeric Acrylic

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
ICI Paints Devoe High Performance Coatings	N/A	N/A	ICI Ultra-Hide Duras Flat (2210)	ICI Ultra- Hide Duras Flat (2210)
PPG	PittGlaze Acrylic Block Filler 16-90	N/A	Perma-Crete PittFlex Elastomeric 4-110 or 4-210	Perma-Crete PittFlex Elastomeric 4-110 or 4- 210
Tnemec	Series 130 Enviro Fill	N/A	Series 156 or 157	Series 156 or 157
Sherwin Williams	TPM 700 Series	N/A	Loxon Smooth A24W300 or Ultra Tex A44W8XX	Loxon Smooth A24W300 or Ultra Tex A44W8XX
TAMMS Industries	TAMMS H/P Primer	N/A	Tammolastic	Tammolastic
Carboline	Sanitile 100	N/A	Flexxide Elastomer	Flexxide Elastomer
Induron	AC220	N/A	AC403 Acrylic Elastomer	AC403 Acrylic Elastomer

For Exterior - Elastomeric Acrylic Architectural Coating System (Two Coats) over Filler/Surfacer and Primer for Concrete and CMU – Exterior weathering exposure only.

**COATINGS MANUAL
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COATING SYSTEM ID: **MIOX-1**

SUBSTRATE(S): Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Micaceous Iron Oxide

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	N/A	Phenoline 311	Carbothane 133HB	Carbothane 133HB
ICI Paints Devoe High Performance Coatings	N/A	Wasser Mio-Zinc	Wasser Mio-Zinc	Wasser Mio-Zinc
PPG	N/A	N/A	N/A	N/A
Sherwin Williams	N/A	Corothane I	Corothane I HS	Corothane I HS
Tnemec	N/A	Series I	Series I	Series 73- 44710

For Interior and Exterior – mildly corrosive and non-immersion. Micaceous Iron Oxide (MIOX) Filled Moisture Cured Polyurethane Maintenance Coating System for moist vapor conditions such as over operating equipment. This coating system is quite expensive.

**COATINGS MANUAL
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COATING SYSTEM ID: **PU-1**

SUBSTRATE(S): Concrete

SYSTEM GENERIC DESCRIPTION: Polyurea Lining

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	Sanitile 600	Phenoline 311	N/A	Polyclad 707
ITW Futura Coatings	Futura Bond 320 Gel	Futura Bond 415	N/A	Iraseal 200
Sherwin Williams	TPM 700	Corobond 100	N/A	Envirolastic AR425
Tnemec	Series 218	Series 201	N/A	Series 400
PPG	Amerlock Sealer	N/A	N/A	Amerthane 490

For Interior or Exterior - Polyurea flexible lining for concrete where very rapid cure and crack bridging capabilities are needed on concrete substrates especially for secondary containment applications. Must be used with the appropriate primer to ensure good adhesion. Can be used for Sodium Hypochlorite exposure in secondary containment where active substrate crack movement is considered problematic

**COATINGS MANUAL
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COATING SYSTEM ID: **S-1**

SUBSTRATE(S): Concrete or CMU

SYSTEM GENERIC DESCRIPTION: Acrylic

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Chemprobe/Tnemec	N/A	N/A	Conformal Stain	Conformal Stain
Sherwin Williams	N/A	N/A	H&C Acrylic Concrete Stain	H&C Acrylic Concrete Stain
Carboline	N/A	N/A	Carbocrete Sealer WB	Carbocrete Sealer WB
PPG	N/A	N/A	Amercoat 220	Amercoat 220

For Exterior – an acrylic based penetrating stain for use on brick, CMU, and concrete to add uniform color to the substrate and permit moisture vapor to escape from the substrate. For aesthetic purposes only.

**COATINGS MANUAL
HRSD**

COATING SYSTEM ID: **TW-1**

SUBSTRATE(S): Ferrous or Non-Ferrous Metals

SYSTEM GENERIC DESCRIPTION: Tape Wrap Petroleum

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	TAPE
Carboline	Carbowrap Mastic	Carbowrap Priming Paste	Tape A, B, or C – temp. dependent
Denso	Denso Profiling Mastic	Denso Paste	Densyl Tape
Trenton	Temcoat	Wax Tape Primer	#2 Wax Tape

For Interior or Exterior - Tape Wrap Petroleum or Wax Systems for piping or metal substrates where no surface preparation or minimal preparation can be performed and protection is required to keep moisture and oxygen out. Not intended for aggressive chemical resistance. Various alternative tape wrap systems are available for higher temperature piping where needed. Consult with the manufacturers listed for those products. The listed products are good up to 150°F.

**COATINGS MANUAL
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COATING SYSTEM ID: **TW-1-P**

SUBSTRATE(S): PVC or CPVC Only

SYSTEM GENERIC DESCRIPTION: Tape Wrap Petroleum

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	TAPE
Carboline	Carbowrap Mastic	Carbowrap Priming Paste	Tape A, B, or C – temp. dependent
Denso	Denso Profiling Mastic	Denso Paste	Densyl Tape
Trenton	Temcoat	Wax Tape Primer	#2 Wax Tape

For Interior or Exterior - Tape Wrap Petroleum or Wax Systems for piping or plastic substrates where no surface preparation or minimal preparation can be performed and protection is required to keep moisture and oxygen out. Not intended for aggressive chemical resistance. The listed products are good up to 150°F. The tape wrap systems can be used over PVC/CPVC to protect those thermoplastics from ultraviolet light degradation in cases where the PVC/CPVC cannot be coated due to exposure conditions or operating constraints.

**COATINGS MANUAL
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COATING SYSTEM ID: **VE-1**

SUBSTRATE(S): Concrete

SYSTEM GENERIC DESCRIPTION: Vinyl Ester

MANUFACTURER	FILLER/ SURFACER	PRIMER COAT	INTER- MEDIATE COAT	FINISH COAT
Carboline	9029	N/A	Plasite 4300	Plasite 4300
Sauereisen	F-120	VEPrimer No. 550	Fibreline No. 440	VEGlaze No. 472
Tnemec	Series 218	Series 120- 5002	N/A	Series 120- 5001
Sherwin Williams	TPM Series 700	Corobond VE Primer	Cor-Cote VEN FF	Cor-Cote VEN FF
PPG	Amercoat 100A	PolySpec 320 For Concrete PolySpec 310 For Steel	FlakeRez 303	FlakeRez 303

For Interior or Exterior - Vinyl ester coating system for concrete for secondary containment applications for sodium hypochlorite, sodium bisulfite, and muriatic acid areas. Treat actively moving cracks separately prior to coating application.