

Systems Selector

WATER AND WASTEWATER TREATMENT



PPG PPG High Performance Coatings

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PPG PPG High Performance Coatings

HIGH PERFORMANCE COATINGS FROM A HIGH PERFORMANCE COMPANY

PPG is a leading supplier of high performance coatings for the water and waste water industries. Our complete line of primers, intermediate coatings and finishes are designed to meet your precise requirements and have been proven effective in the most demanding applications.

Facility owners, industrial contractors, engineers and specifiers choose PPG High Performance Coatings when performance counts. PPG Coal-Cat coal tar epoxies and Pitt-Guard Epoxy Mastic coatings protect in the most severe immersion service.

HIGH PERFORMANCE PRODUCTS

Our Aquapon NSF epoxies offer you NSF/ ANSI 61 approval from PPG, a company that you can count on for the long haul. Our expertise in coatings, combined with the knowledge of a world leader in water treatment chemicals like calcium hypo chloride, and caustics, give us a unique perspective on the challenges of coatings for potable water vessels.



Our easy to apply Pitthane Ultra is ideal when excellent color and gloss retention are required. PPG high performance waterborne coatings like our Pitt-Tech DTM acrylic and Aquapon WB offer superior performance with the application and environmental benefits of water based products.

HIGH PERFORMANCE PEOPLE

You can count on PPG High Performance Engineer and Architect Representatives, as well as a national team of NACE certified High Performance Coatings specialists to address your coatings challenges. Our team is committed to protecting your valuable assets with sound advice and has the experience to back it up.



HOW TO USE THIS GUIDE

For technical information and specification assistance, call PPG High Performance Coatings Technical Services toll free at 1-877-FOR-HPC1 or contact your local PPG sales representative.

The paint systems detailed in this guide are representative of the many types of High Performance Coatings available for water and waste water applications. Each system listed specifies the recommended surface preparation, primer, intermediate and finish coat to offer maximum protection for your facility.

BEFORE SELECTING A COATING SYSTEM

Consider the following factors:

- Environmental conditions and exposure
- What kind and degree of surface preparation can be performed
- The life expectancy and economics of the coating system

STEP 1: SELECT A PAINT SYSTEM

- Look for the area that you are painting.
- Identify the substrate
- Choose a system

STEP 2: REVIEW SYSTEM PROPERTIES

- Surface preparation
- Coatings

STEP 3: RELY ON AN EXPERT RECOMMENDATION FROM PPG HIGH PERFORMANCE COATINGS

Call PPG High Performance Coatings Technical Services or your PPG High Performance Coatings Representative today for specification assistance and high performance coatings from a high performance company.



1.0 IMMERSION SERVICE

AREA	SUBSTRATE	SURFACE PREP	PRIMER	INTERMEDIATE	FINISH
Grit Chambers Grates Screw Pumps	Steel	SSPC-SP 10 "Near-White" Blast	Pitt-Guard DTR 97-145 Series	None	Pitt-Guard DTR 97-145 Series
			Coal Cat 97-640	None	Coal Cat 97-640
Clarifiers Aeration Tanks Screening - Tanks	Concrete	Sweep Blast	Pitt-Guard 97-145	Pitt-Guard 97-145	Pitt-Guard 97-145
			Coal Cat 97-640	Coal Cat 97-640	Coal Cat 97-640
Settling - Tanks Manhole Cover Concrete Pipe Steel Pipe Water Tanks	"Potable" Water Lining	SSPC-SP 10 "Near-White" Blast	Aquapon HB 95-132	None	Aquapon HB 95-132
			Aquapon LT 95-172	None	Aquapon LT 95-172
		Sweep Blast or Acid Etch Concrete	Aquapon HB 95-132	Aquapon HB 95-132	Aquapon HB 95-132
			Aquapon LT 95-172	Aquapon LT 95-172	Aquapon LT 95-172
Primary Digesters	Steel	SSPC-SP 5 "White-Metal"	EP-97 Amine-Epoxy 97-160	EP-97 Amine-Epoxy 97-160	EP-97 Amine-Epoxy 97-160
Sludge Processing	Concrete	Sweep Blast or Acid Etch Concrete	EP-97 Amine-Epoxy 97-160	EP-97 Amine-Epoxy 97-160	EP-97 Amine-Epoxy 97-160

2.0 NON-IMMERSION: SEVERE EXPOSURE - INTERIOR

AREA	SUBSTRATE	SURFACE PREP	PRIMER	INTERMEDIATE	FINISH
Machinery Equipment Wet Wells Grit Chambers Screening- Chambers	Steel	New SSPC-SP6 "Commercial"	Metalhide 1001 97-673 (Shop)	Aquapon HB 97-130	Aquapon 95-1
		Repaint SSPC-SP2 / 3 "Hand/Power Tool"	Pitt-Guard Rapid Coat DTR 95-245	Pitt-Guard Rapid Coat DTR 95-245	Aquapon 95-1 (Optional)
Chemical- Mixing rooms Pump Station Dry Wells Bridges Catwalks Handrails Digester- Covers Gas Holders	Concrete	Sweep Blast	Pitt-Guard Rapid Coat DTR 95-245	Pitt-Guard Rapid Coat DTR 95-245	Aquapon 35 95-1 (Optional)
	Galvanized Steel	SSPC-SP 1 & Galvaprep® 5	Pitt-Guard Rapid Coat DTR 95-245	Pitt-Guard Rapid Coat DTR 95-245	Aquapon 35 95-1 (Optional)
	Concrete-Block	Clean and Dry	Waterproofing Block Filler 95-217	Pitt-Guard Rapid Coat DTR 95-245	Pitt-Guard Rapid Coat DTR 95-245
				Aquapon HB 97-130	Aquapon 35 95-1
				Aquapon HB 97-130	Aquapon HB 97-130

SURFACE PREPARATION SYSTEM SELECTOR

REFERENCE #	SUBSTRATE	SURFACE PREPARATION
SSPC-SP1	Solvent Cleaning	Solvent cleaning is a method for removing all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants from surfaces. It is intended that solvent cleaning be used prior to the application of paint and in conjunction with surface preparation methods specified for the removal of rust, mill scale or paint.
SSPC-SP2	Hand Tool Cleaning	Hand tool cleaning is a method of preparing steel surfaces by the use of non-power hand tools. Hand tool cleaning removes all loose mill scale, loose rust, loose paint and other loose, detrimental foreign matter. It is not intended that adherent mill scale, rust and paint be removed by this method. Mill scale, rust and paint are considered adherent if they cannot be lifted by a dull putty knife.
SSPC-SP3	Power Tool Cleaning	Power tool cleaning is a method of preparing steel surfaces through the use of power assisted hand tools. Power tool cleaning removes all loose mill scale, loose rust, loose paint and other loose detrimental foreign matter. It is not intended that adherent mill scale, rust and paint be removed by this method. Mill scale, rust and paint are considered adherent if they cannot be removed by lifting with a dull putty knife.
SSPC-SP5 NACE #1	White Metal Blast Cleaning	A white metal blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products and other foreign matter.
SSPC-SP6 NACE #3	Commercial Blast Cleaning	A commercial blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products and other foreign matter except for staining as noted. Staining shall be limited to no more than 33% of each square inch of surface area and may consist of light shadows, slight streaks or minor discolorations caused by stains of rust, stains of mill scale or stains of previously applied paint. Slight residues of rust and paint may also be left in the bottom of pits if the original surface is pitted.
SSPC-SP7 NACE #4	Brush-Off Blast Cleaning	A brush-off blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust and loose paint. Tightly adherent mill scale, rust and paint may remain on the surface. Mill scale, rust and paint are considered tightly adherent if they cannot be removed by lifting with a dull putty knife.
SSPC-SP10 NACE #2	Near-White Blast Cleaning	A near-white blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products and other foreign matter, except for staining as noted. Staining shall be limited to no more than 5% of each square inch of surface area and may consist of light shadows, slight streaks or minor discolorations caused by stains of rust, stains of mill scale or stains of previously applied paint.
SSPC-SP11	Power Tool Cleaning to Bare Metal	Metallic surfaces, which are prepared according to this specification, shall be free of all oil, grease, dirt, dust, mill scale, rust, paint, oxide, corrosion products and other foreign matter. Slight residues of rust and paint may be left in the lower portion of pits if the original surface is pitted. SP-11 differs in intent from SP-3 in that a profile is required.
SSPC-SP12 NACE #5	Surface Preparation and Cleaning of Steel and Other Hard Materials by High-and Ultrahigh Pressure Water Jetting Prior to Recoating	The specifier shall use one of the visual surface preparation definitions (WJ-1 to WJ-4) and one of the non-visual surface preparation definitions (SC-1 to SC-3) to specify the degree of visible and non-visible surface matter to be removed. See full spec.
SSPC-SP13 NACE #6	Surface Preparation of Concrete	Addresses cast-in-place concrete floors and walls, precast slabs, masonry walls, shotcrete surfaces Includes mechanical, chemical, and thermal methods. See full spec for details.
SSPC-SP14 NACE #8	Industrial Blast Cleaning	Used when the objective is to remove most of the coating, mill scale, and rust. Industrial blast cleaning is positioned between a brush-off/sweep blast cleaning and a commercial blast cleaning.



3.0 EXTERIOR EXPOSURE: WEATHERING - UV AND MILD CHEMICAL

AREA	SUBSTRATE	SURFACE PREP	PRIMER	INTERMEDIATE	FINISH	
Structures	Steel	New SSPC-SP6 "Commercial"	Metalhide 97-673 (Shop)	Aquapon 97-130	Pitthane Ultra 95-812	
Piping			Aquapon Zinc 97-670 (Shop)	Pitt-Guard Rapid Coat DTR 95-245	Pitthane HB Semi-Gloss 95-8800	
Pipe Racks		Repaint SSPC-SP 2/3 "Hand / Power Tool"	Pitt-Guard Rapid Coat DTR 95-245	None	Pitthane Ultra 95-812	
Valves					Pitt-Tech DTM 90-374 or 90-474	
Handrails						
Ramps		Concrete-Block	New / Repaint Clean and Dry	Waterproofing Block Filler 95-217	Pitt-Tech 90-374 or 90-474	Pitt-Tech DTM 90-374 or 90-474
Doors/Sash		Galvanized Steel	SSPC-SP 1 & Galvprep 5	Fast Dry Epoxy 94-109	Aquapon 97-130 (Optional)	Pitthane Ultra 95-812
Motors		Weathered Galvanized Steel	Clean & Dry	None	None	Aluminum Paint 6-230
Fences	MCU Aluminum UC 65317			None	Pitthane Ultra 95-812	

4.0 INTERIOR EXPOSURE: DRY

AREA	SUBSTRATE	SURFACE PREP	PRIMER	INTERMEDIATE	FINISH
Laboratories	Concrete / Block	Clean & Dry	Waterproofing Block Filler 95-217 as required	Aquapon HB 97-130 1 or 2 coats	Aquapon 35 95-1 (Optional)
			Waterproofing Block Filler 95-217	None	Pitt-Guard Rapid Coat DTR 95-245
Work Rooms			Pitt-Glaze Block Filler 16-90	Pitt-Tech DTM 90-374 or 90-474	Pitt-Tech DTM 90-374 or 90-474
Pump Rooms	Concrete Floors	Sweep Blast or Acid Etch Concrete	Aquapon 97-130	Aquapon 97-130	Aquapon 95-1
				Pitt-Guard DTR 97-145 (Best)	Pitt-Guard DTR 97-145 (Best)
Blower Rooms	Dry Wall	Clean, Dry, Dust Free	Aquapon 97-130	Aquapon 97-130	Aquapon 95-1 (Optional)
			Aquapon WB 98-1	Aquapon WB 98-1	Aquapon WB 98-1 (Optional)
Control Rooms			Pitt-Tech DTM 90-374 or 90-474	None	Pitt-Tech DTM 90-374 or 90-474
Control Rooms	Metal Trim	Repaint SSPC-SP 2/3 "Hand / Power Tool"	Pitt-Guard Rapid Coat DTR 95-245	Aquapon 95-1	Aquapon WB 98-1 (Optional)
			Pitt-Tech DTM 90-374 or 90-474	None	Pitt-Tech DTM 90-374 or 90-474





PPG HIGH PERFORMANCE COATINGS PRODUCT GUIDE

PRODUCT	NAME	TYPE	USES IN THE WATER / WASTEWATER INDUSTRY
6-230	Speedhide® Int/Ext. Aluminum Paint	Modified Oleoresinous Varnish Aluminum Paint	Excellent for weathered galvanized steel.
16-90	Pitt-Glaze® Interior/Exterior Latex Block Filler	Modified Acrylic Latex	Suitable for priming or filling interior or exterior porous surfaces of lightweight concrete or cinder block. Ideal for dry interior exposures in plants and facilities or areas subject to intermittent moisture.
90-374	Pitt-Tech® Int/Ext High Gloss DTM Industrial Enamel	100% Acrylic Formula	These products provide corrosion protection, chemical and solvent resistance, and are fast drying with low odor. Recommended for use on properly prepared interior or exterior metal, masonry, plaster and drywall surfaces.
90-474	Pitt-Tech® Int/Ext Satin DTM Industrial Enamel	100% Acrylic Formula	These products provide corrosion protection, chemical and solvent resistance, and are fast drying with low odor. Recommended for use on properly prepared interior or exterior metal, masonry, plaster and drywall surfaces.
94-109	Multiprime® EFD	Polyamide- Epoxy Two Component	A fast dry inhibitive primer for use over properly prepared metal surfaces. It is an ideal primer to apply to properly prepared new galvanized steel.
95-1	Aquapon® 35 Polyamide-Epoxy Gloss	Polyamide- Epoxy Two Component	For moderate to severe exposure for interior non-immersion service. Recommended over properly prepared and primed steel, galvanized steel, aluminum, masonry surfaces and dry wall.
95-132	Aquapon® High Build Potable Water Epoxy Coatings	Polyamide- Epoxy Two Component	Conforms to the requirements of ANSI/ NSF Standard 61 for potable water tanks.
95-172	Aquapon® Low Temp Potable Water Epoxy	Polyamine- Epoxy Two Component	Conforms to the requirements of ANSI/ NSF Standard 61 for potable water tanks. For use where low temperate cure is desirable.
95-217	Cementitious Waterproofing Block Filler	Epoxy Ester	Used to fill, seal and waterproof interior and exterior concrete, concrete block, brick and other masonry surfaces.
95-245	Pitt Guard® Rapid Coat Direct to Rust Epoxy Mastic Coatings	Polyamide- Epoxy Two Component	For interior and exterior use where barrier type protection is required for steel, aluminum, hot dipped galvanized steel and masonry surfaces. Good performance over tightly adhering rust. Excellent performance over abrasive blasted surfaces. Low temperature cure to 35° F.
95-812	Pitthane® Ultra Gloss Urethane Enamels	Acrylic Aliphatic Urethane	Recommended for exterior exposures where color and gloss retention are primary considerations. The ultimate protection from chalking and superior chemical resistance.
95-8800	Pitthane® Semi-Gloss Urethane Enamels	Acrylic Aliphatic Urethane	Recommended as topcoats in coating systems where a semi-gloss appearance, long term color and gloss retention are desired.
97-130	Aquapon® High Build Semi-Gloss Polyamide-Epoxy Coatings	Polyamide- Epoxy Two Component	Recommended for heavy duty service in corrosive industrial atmospheres. In the water industry, this coating is an excellent high build intermediate for immersion and non-immersion severe interior and exterior exposures.
97-145	Pitt Guard® Direct to Rust Epoxy Mastic Coatings	Polyamide- Epoxy Two Component	Recommended for severe immersion service, where barrier coat protection is required over properly prepared steel, hot dipped galvanized steel, and properly prepared masonry.
97-160	EP-97 Amine Cured Epoxy Finish Coatings	Two Component Amine-Epoxy	Excellent chemical resistance typical of amine cured epoxies, makes this product the solution for the harsh immersion exposures for steel and concrete surfaces in areas like primary digesters and sludge processors.
97-640	Coal Cat®	Resinous Cured Coal Tar Epoxy Coating	Intended for immersion and environmental resistance to corrosion from sewage.
97-670	Aquapon Zinc Rich Primer ABC	Polyamide- Epoxy Three Component, Organic Zinc Coating	Sacrificial primer for shop application to sandblasted steel for exterior exposure applications in the water industry.
97-673	Metalhide® 1001 Inorganic Zinc Coating	Inorganic self curing ethyl silicate, metallic zinc	Sacrificial primer for shop application to sandblasted steel for exterior exposure applications in the water industry.
98-1	Aquapon® WB Water Base Epoxy	Waterborne Epoxy Two Component	For moderate exposure for interior non-immersion service. Recommended over properly prepared and primed steel, galvanized steel, aluminum, masonry surfaces and dry wall.
UC-65371	3.5 VOC Aluminum Primer	One Component Moisture Cured Urethane Aluminum Primer/ Finish	Recommended to prime weathered galvanized steel for exterior exposures.