



## PPG Protective & Marine Coatings Municipal Wastewater Systems Guide

Ensuring quality protection at each stage of treatment



PPG Protective &  
Marine Coatings

**AMERCOAT**

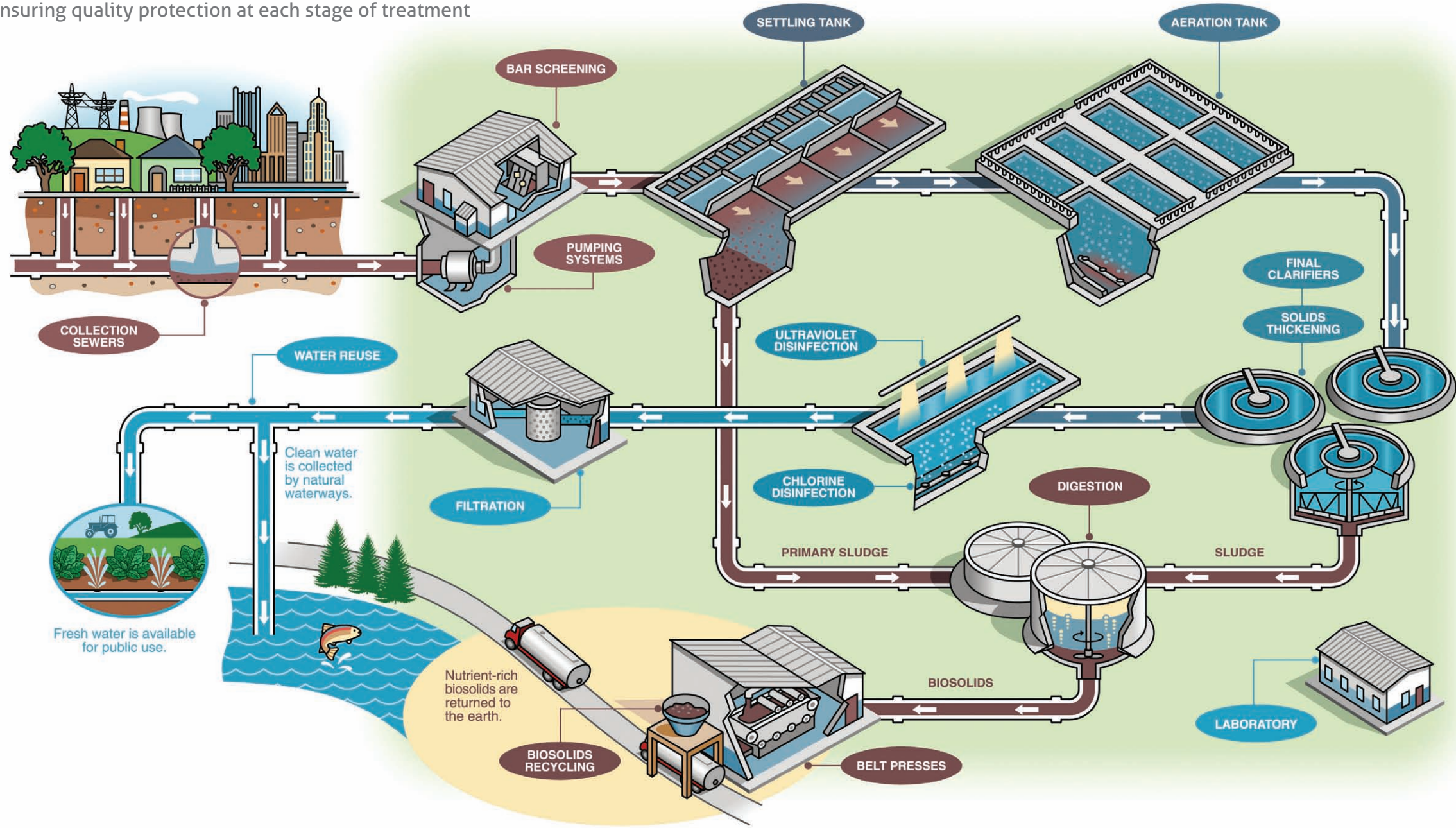


**SIGMA  
COATINGS**

A PPG Brand

# PPG Protective & Marine Coatings

Ensuring quality protection at each stage of treatment



A high performance, heavy-duty barrier where it matters most

Choosing coating systems is one of the most critical phases of creating and maintaining a wastewater treatment facility. Due to the abrasiveness of the treatment process—it's necessary to protect all facility components with a powerful and resilient barrier. Poor protection will jeopardize reliability of the facility and lead to unsafe conditions, poor quality and greater expenses.

**Disaster can happen at any stage.** Some of the most potent biogenic gases present within the plant include hydrogen sulfide, carbon dioxide and methane. When introduced to water, hostile compounds are produced. Protective coatings must be able to resist this penetration and acidic nature. When coatings fail, biogenic gases permeate the substrate and corrode a facility.

Particularly in stationary or enclosed areas, a higher concentration of aggressive compounds accumulates. Such build up demands an even more forceful coating system. In addition to chemical and biological abuse, the facility is subject to abrasion and impact from the mechanical separation process, which is why coating systems selected for these processes should have the abrasion and impact resistance that PPG Coatings offer.

**PPG has protection for every stage.** Our Municipal Wastewater Operations Guide illustrates which type of protection you need at every stage of the wastewater treatment process. PPG Protective & Marine Coatings are known for resiliency under the most demanding conditions and guarantee optimal protection. To learn more about our line of high-performance, heavy-duty protective coating, visit us at [www.ppgpmc.com](http://www.ppgpmc.com).



## Wastewater Process Coating Systems

	Collective Sewers	Pumping Systems	Bar Screens	Settling Tanks	Aeration Tanks	Final Clarifiers	Chlorine Disinfection	UV Disinfection	Final Filtration Systems	Water Re-use Storage	Solids Processing	Digestion Processes	Solids Dewatering
Maintenance	<b>Steel</b> – 2 coats of NovaGuard™ 840 at 16-20 mils per coat <b>Concrete</b> – 1 coat of Amerlock® Sealer + 2 coats of NovaGuard 840 at 16-20 mils per coat <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A + 1 coat of Novaguard 840 at 8-12 mils	<b>Steel</b> – 2 coats of Amercoat 240 at 8-10 mils per coat <b>Concrete</b> – 1 coat of Amerlock Sealer + 2 coats of Amercoat 240 at 8-10 mils per coat <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A at 80-125 mils + 2 coats of Amercoat 240 at 8-10 mils per coat	<b>Steel</b> – 2 coats of NovaGuard 840 at 8-10 mils per coat	<b>Steel</b> – 1 coat of NovaGuard 840 at 16-20 mils <b>Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of NovaGuard 840 at 16-20 mils <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A at 80-125 mils + 1 coat of Amercoat 240 at 8-12 mils	<b>Steel</b> – 2 coats of Amercoat 240 at 8-10 mils per coat <b>Concrete</b> – 1 coat of Amerlock Sealer + 2 coats of Amercoat 240 at 8-10 mils per coat <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A at 80-125 mils + 2 coats of Amercoat 240 at 8-10 mils per coat	<b>Steel</b> – 2 coats of Amercoat 240 at 6-8 mils per coat + stripe coat <b>Concrete</b> – 2 coats of Amercoat 240 at 8-12 mils per coat; fill surface voids with Amercoat 114A <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A at 80-125 mils + 1 coat of Amercoat 240 at 8-12 mils	<b>Steel</b> – 1 coat of NovaGuard 840 at 16-20 mils <b>Concrete</b> – 1 coat of Amerlock Sealer + 2 coats of Amercoat 240 at 8-10 mils per coat*	<b>Steel</b> – 2 coats of Amercoat 240 at 10-12 mils per coat <b>Concrete</b> – 1 coat of Amerlock Sealer + 2 coats of Amercoat 240 at 10-12 mils per coat	<b>Steel</b> – 2 coats of Amercoat 240 at 6-8 mils per coat + stripe coat <b>Concrete</b> – 2 coats of Amercoat 240 at 8-12 mils per coat; fill surface voids with Amercoat 114A <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A at 80-125 mils + 1 coat of Amercoat 240 at 8-12 mils	<b>Steel</b> – 2 coats of Amercoat 240 at 6-8 mils per coat + stripe coat <b>Concrete</b> – 2 coats of Amercoat 240 at 8-12 mils per coat; fill surface voids with Amercoat 114A <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A at 80-125 mils + 1 coat of Amercoat 240 at 8-12 mils	<b>Steel</b> – 2 coats of NovaGuard 840 at 16-20 mils <b>Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of NovaGuard 840 at 16-20 mils <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A at 80-125 mils + 1 coat of Amercoat 240 at 8-12 mils	<b>Steel</b> – 2 coats of NovaGuard 840 at 10-16 mils per coat <b>Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of NovaGuard 840 at 16-20 mils <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A at 80-125 mils + 1 coat of Amercoat 240 at 8-12 mils	<b>Steel</b> – 1 coat of NovaGuard 840 at 16-20 mils <b>Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of NovaGuard 840 at 16-20 mils <b>Deteriorated Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of Amercoat 100A at 80-125 mils + 1 coat of NovaGuard 840 at 8-12 mils
	New Construction	<b>Steel</b> – 2 coats of NovaGuard™ 840 at 16-20 mils per coat <b>Concrete</b> – 1 coat of Amerlock® Sealer + 2 coats of NovaGuard 840 at 16-20 mils per coat	<b>Steel</b> – 2 coats of Amercoat 240 at 8-10 mils per coat <b>Concrete</b> – 1 coat of Amerlock Sealer + 2 coats of Amercoat 240 at 8-10 mils per coat	<b>Steel</b> – 2 coats of Amercoat 238 at 8-10 mils per coat	<b>Steel</b> – 1 coat of NovaGuard 840 at 16-20 mils <b>Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of NovaGuard 840 at 16-20 mils	<b>Steel</b> – 2 coats of Amercoat 240 at 8-10 mils per coat <b>Concrete</b> – 1 coat of Amerlock Sealer + 2 coats of Amercoat 240 at 8-10 mils per coat	<b>Steel</b> – 2 coats of Amercoat 240 at 6-8 mils per coat + stripe coat <b>Concrete</b> – 2 coats of Amercoat 240 at 8-12 mils per coat; fill surface voids with Amercoat 114A	<b>Steel</b> – 1 coat of NovaGuard 840 at 16-20 mils <b>Concrete</b> – 1 coat of Amerlock Sealer + 2 coats of Amercoat 240 at 8-10 mils per coat*	<b>Steel</b> – 2 coats of Amercoat 240 at 10-12 mils per coat <b>Concrete</b> – 1 coat of Amerlock Sealer + 2 coats of Amercoat 240 at 10-12 mils per coat	<b>Steel</b> – 2 coats of Amercoat 240 at 6-8 mils per coat + stripe coat <b>Concrete</b> – 2 coats of Amercoat 240 at 8-12 mils per coat; fill surface voids with Amercoat 114A	<b>Steel</b> – 2 coats of Amercoat 240 at 6-8 mils per coat + stripe coat <b>Concrete</b> – 2 coats of Amercoat 240 at 8-12 mils per coat; fill surface voids with Amercoat 114A	<b>Steel</b> – 1 coat of NovaGuard 840 at 16-20 mils <b>Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of NovaGuard 840 at 16-20 mils	<b>Steel</b> – 2 coats of NovaGuard 840 at 10-16 mils per coat <b>Concrete</b> – 1 coat of Amerlock Sealer + 1 coat of NovaGuard 840 at 16-20 mils

\*Depending on the level of chlorination, the concrete may need an alternative system: 1 coat of Amerlock Sealer + 1 coat of NovaGuard 840 at 16-20 mils.

## PPG Protective & Marine Coatings guarantee:

For decades, PPG Protective & Marine Coatings (PMC) has ensured the protection of America's wastewater treatment facilities.

- **A quality solution.** Our coatings provide all facility substrates with optimal protection from acids, chemicals, abrasion and immersion, ensuring the quality of both the facility and of the product.
- **A cost-effective solution.** Our coatings are designed to adhere with less surface preparation and reduced applications; thereby maximizing protection and minimizing preparation time.
- **A convenient solution.** PPG has more than 400 locations nationwide to serve customers.

### Amercoat 240

#### *Universal Epoxy Coating*

Amercoat 240 is a surface-tolerant, direct-to-metal universal epoxy. It is a much superior high-film build (up to 12 mils in single coat) and provides optimal corrosion protection in immersion, non-potable and corrosive chemical environments. Best for use with immersion surfaces as well as for exterior protection, it can be applied down to 40°F and cures down at 32°F. It offers excellent edge coverage (75% compared to the typical 25% with other coatings), meaning less strip coating is required.

### Amerlock Series

#### *Amerlock 2/Amerlock 400/Amerlock 400BF*

Amerlock 2 and Amerlock 400 surface-tolerant epoxy coatings are high-solid, high-build epoxy coatings that offer superior chemical resistance to splash, spillage and fumes. They also resist high humidity and moisture. Both epoxies are NSF standard 61-approved for potable water. Amerlock 400BF Block Filler is an epoxy block filler suitable for use on prepared interior or exterior masonry block. Glass Flake version is also available for surfaces exposed to high heat. The Amerlock series offers a fast dry formula with a 3-hour recoat window (at 70°F) to save time and money, higher coverage protection (6-8 mils coverage in one coat), low VOC and the option to tint in a custom color or top-coat with urethanes.

### NovaGuard 840

#### *Amine-Cured Phenolic Epoxy Coating*

NovaGuard 840 is a single-coat, solvent-free phenolic epoxy that is resistant to severe H<sub>2</sub>S, chemicals and heavy abrasion environments. It offers excellent resistance against a wide range of chemicals and solvents and is optimal for surfaces that are exposed to hydrogen sulfide.

### Amerlock Sealer

#### *Solvent-Free Epoxy Sealer*

Amerlock Sealer adheres to aged coatings. It is compatible with many older coatings as well as damp substrate and can be used as a concrete-curing compound.

### Amercoat 100A

#### *Spray-On Epoxy Surface*

Amercoat 100A is a spray-applied, reinforced epoxy surface for use in severe immersion and H<sub>2</sub>S environments.

### Amercoat 238

#### *Abrasion Resistant Epoxy Coating*

Amercoat 238 protects surfaces against unusual abrasive conditions, immersion environments and chemicals.

### Amercoat 114A

#### *Epoxy Filler Compound*

Amercoat 114A is a 100% solid epoxy-filler compound that fill pits, voids or seams in steel and concrete water tanks. It forms (?) concrete or concrete blocks up to one inch across as measured in their largest dimension. A single application will fill or seal most air bubbles and holes.



**PPG Protective & Marine Coatings**

PPG Industries • One PPG Place Pittsburgh, PA 15272 USA