



Municipal Wastewater Infrastructure Rehabilitation System Guide

Sherwin-Williams offers a complete line of products to address the corrosion protection of concrete and steel surfaces associated with wastewater collection and distribution.



This line of products allows the specifier to select flexible coatings to address soil movement and potential damage from vehicular traffic loads; to select epoxy coatings designed for use in highly corrosive hydrogen sulfide environments; or to design systems combining both types of coatings.



Couple these systems with structural repair mortars and chemical grouting products distributed by Sherwin-Williams for a complete rehabilitation system for your wastewater infrastructure needs.

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The Sherwin-Williams Infrastructure Linings & Rehabilitation Systems Utilize the Following Products:

Dura-Plate 6100 (2:1 mix)

This is a 100% solids, high build, high performance epoxy lining capable of film builds in excess of 125 mils in a single application. Designed to provide a high strength lining for severe wastewater environments with sulfuric acid formation generated by Microbial Induced Corrosion, this lining is ideally suited for the lining and rehabilitation of sewer collection and wastewater treatment structures in both the municipal and industrial marketplace.

Dura-Plate 5900 (1:1 mix) Formerly CorCote® SC Plus

This is a 100% solids, high build epoxy coating that can be applied up to 125 mils in a single application. It is primarily designed for the protection of concrete and brick manhole structures in highly corrosive hydrogen sulfide environments associated with municipal wastewater applications including lift stations, wet wells and manholes. *Dura-Plate 5900's* high degree of chemical resistance to a wide variety of organic acids, combined with tough, impermeable finish make it ideal for use in municipal collection systems.

Dura-Plate 5800 (2:1 mix) Formerly CorCote® SC

This is a 100% solids, high build epoxy coating that can be applied up to 60 mils in a single application as a neat resin or combined with aggregate to make a mortar capable of 125 mils. It is primarily designed for the protection of concrete and brick manhole structures in highly corrosive hydrogen sulfide environments associated with municipal wastewater applications including lift stations, wet wells and manholes. *Dura-Plate 5800's* high degree of chemical resistance to a wide variety of organic acids, combined with tough, impermeable finish make it ideal for use in municipal collection systems.

SherFlex Elastomeric Polyurethane (3:1 mix)

This is a 100% solids, aromatic polyurethane lining that can be applied up to 250 mils in a single application. It is a tough, flexible, impact-resistant waterproof lining system that is designed for the protection of concrete and brick manhole structures in highly corrosive hydrogen sulfide environments associated with municipal wastewater application including lift stations, wet wells and manholes. SherFlex Elastomeric Polyurethane's flexibility makes it ideally suited for manhole applications in unstable and moving soils. SherFlex is designed to be applied over properly prepared primed concrete substrates.

Envirolastic AR530 Brush Grade and Chimney Seal

This is a 100% solids, fluid applied polyurea elastomer chimney seal material that is based on proprietary polyurea formulation and a modified amine curing mechanism. It can be applied at thicknesses of 60-125 mils in consecutive multiple applications. The fast cure, low odor flexible polyurea makes it ideal for applications on the chimney within a manhole structure. The 530% elongation will bridge 1/8" cracks, making it the right coating in areas of heavy traffic loading and soil movement.





The Cementitious Rehabilitation Systems Distributed by Sherwin-Williams Utilize the Following Products:

Calcium Aluminate Mortars

is a blend of quartz silica, fibers and calcium aluminate cement. They can be hand or spray applied, usually from ½" to 1" in depth. Uses include repairing concrete walls and ceilings, lining brick or concrete manholes and lift stations, etc. Calcium Aluminate Mortars can be especially useful when coatings are required at early ages. CAM may be coated in as little as 12 hours. (Always consult with coating manufacturer.) The acid resistance of the calcium aluminate cement is particularly well-suited for the wastewater industry.

Microsilica Mortars

is a blend of Portland cement, graded silica sand, fibers and silica fume. The mortar may be hand or spray applied, usually from ½" to 1" in depth. Uses include repairing concrete walls, ceilings, lining brick or concrete manholes and lift stations, etc. Microsilica Mortar provides an extremely dense matrix and will accept coatings at earlier ages than typical Portland cement repair products.

Vertical/Overhead Mortars

is a one-part, polymer modified, fast-setting, silica fume, fiber-reinforced mortar designed for vertical and overhead repairs from ¼" to 3" in one application. The product may be applied by hand or sprayed with a low-pressure pump.

Manufacturers: A.W. Cook Cement



The Chemical Grouting Solutions Distributed by Sherwin-Williams Utilize the Following Products:



Hydrophobic Polyurethane Foam

is a hydrophobic polyurethane that, when mixed with a catalyst and in contact with water, is designed to fill large voids in rock fissures, gravel layers, joints, and cracks in

concrete structures and for the cut-off of gushing water.

Hydrophilic Polyurethane Gel

is a hydrophilic polyurethane designed to react with water and form a water impermeable gel mass. When it comes into contact with water, the grout begins to foam or gel, and depending on the temperature and amount of water present, quickly cures to a flexible, impermeable foam or gel mass unaffected by mildly corrosive environments.

Hydrophilic Polyurethane Foam

is a hydrophilic polyurethane resin designed to form a flexible gasket or plug in joints and cracks in concrete. In its uncured form, it is a pale-yellow liquid. When it comes into contact with water, the grout expands quickly and cures to a tough, flexible, adhesive, closed-cell foam that is essentially unaffected by mildly corrosive environments.

Manufacturers: Avanti



Infrastructure Linings and Rehabilitation Product Selection Guide

Lining & Rehabilitation System Solutions										
Hydrophobic Foam	Hydrophilic Gel	Hydrophilic Foam	Calcium Aluminate Mortar	Microsilica Mortar	Vertical/Overhead Mortar	Dura-Plate 6100	Dura-Plate 5900 Epoxy/Mortar	Dura-Plate 5800 Epoxy/Mortar	SherFlex Elastomeric Polyurethane	Envirolastic AR530 Chimney Seal

Common Issues	Hydrophobic Foam	Hydrophilic Gel	Hydrophilic Foam	Calcium Aluminate Mortar	Microsilica Mortar	Vertical/Overhead Mortar	Dura-Plate 6100	Dura-Plate 5900 Epoxy/Mortar	Dura-Plate 5800 Epoxy/Mortar	SherFlex Elastomeric Polyurethane	Envirolastic AR530 Chimney Seal
Common Issues											
Weeping Leaks	•	•	•								
Gushing Leaks	•										
Large Annular Voids	•										
Concrete Structures	•		•								
Brick Structures		•									
Leaking for Joints	•		•								
Leaking for Steps	•		•								
Bench Soil Stabilization	•										
Cementitious Repair Materials											
Mild H2S Environment					•						
Moderate H2S Environment				•							
Minor Concrete Repair Prior to Lining						•					
Faster Overcoat Time for Epoxies				•		•					
Radial Spray Applications				•	•						
Chemical Resistant Linings											
Concrete/Mortar Attack from MIC or H2S							•	•	•	•	•
Substrate Cracking Due to Soil Movement										•	
Expected Settlement Cracks in Substrate										•	
Minor Surface Imperfections to Fill							•	•	•	•	
72-Hour Return to Immersion Service								•			
24-Hour Return to Immersion Service										•	
12-Hour Return to Immersion Service							•				
Low Temperature Application										•	
Resistance to Severe Traffic Loading										•	
Radial Spray Applications							•	•	•		
Overspray Concerns							•			•	•
Touch-Up/Repair Materials/Packaging							•		•	•	
Chimney Seal										•	•
Primer Required										•	
Color Options								•	•		
Chemical Resistant	•	•	•	•	•	•	•	•	•	•	•