



PROTECTIVE COATINGS FOR WATER AND WASTEWATER

Product Selector Guide

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INTRODUCTION

Madison Chemical Industries is a world leader in the development and marketing of “Infrastructural Coatings”™ - ultra high performance coatings that protect and preserve the infrastructure upon which our society depends. With over 30 years of experience in the coatings industry Madison has evolved into a mainstream supplier to many industries including all aspects of the storage, transmission and processing of both potable water and wastewater.

Our exceptional track record in providing comprehensive coating solutions led us to become a major supplier to America’s largest pipe and storage tank manufacturers and allowed us to gain a strong presence in the minds of end users and specifying authorities.

If you are involved in the protection of water purification facilities, waste treatment plants, secondary containment and similar municipally-owned or privately owned facilities, Madison has the products and services necessary to provide you with long-term solutions for your unique corrosion protection challenges.



TECHNOLOGY

Madison polyurethane and epoxy coatings possess unparalleled handling and performance characteristics and set us apart from any other coating or lining on the market today. Madison was the first company in the world to develop 100% solids polyurethane technology that surpasses the ANSI/NSF 61 standard for potable water. In fact, Madison has coatings that are so inert that even today they are the only products of any generic classification that are NSF approved for small tanks and small diameter piping where the ratio of coating surface area to contents volume is high.



Our dynamic in-house research and development team ensures that we always provide leading edge, cost effective solutions for corrosion protection. Recent innovations include the incorporation of an EPA approved Anti-Microbial agent directly into our polyurethane resins. Our AM technology has been NSF approved and provides for enhanced protection for water and wastewater structures. For environments where excessive abrasion occurs, Madison has developed Ceramic Modified versions of our products for increased protection.

TECHNICAL SERVICE

Our network of highly skilled technicians and applicators guarantee superior product performance. Our certified applicators are an elite team of coatings professionals that undergo rigorous training to ensure that they are experts in surface preparation, product application, equipment service, spray techniques and troubleshooting.

Our in-house technical service team is also available to answer your questions and provide support in the field or at your location.



PERFORMANCE

Unrivalled handling and performance characteristics allow Madison's coating products to meet the demands of an incredible array of applications. A wide variety of coatings are available for virtually every kind of substrate encountered in the water and wastewater industry, including steel, ductile iron and concrete. Many of Madison's coatings achieve adhesion in excess of 2,000 p.s.i., more than twice that of the competition. Coated surfaces are so smooth that the coefficient friction rivals that of polyethylene. Impact resistance values compare to the best in the industry. Chemical resistance is proven by 30 years of real-world experience and hundreds of long-term laboratory immersion tests.

Some of the leading edge handling characteristics you can expect from Madison include:

- Curing at virtually any temperature, winter and summer
- Non-flammable, solvent free and as safe as house paint
- Self-priming direct to metal system
- Can be applied in a single multi-pass coat
- Sets in minutes
- Can be put into service in hours
- Easily touched up if damaged
- Non-dangerous goods for transportation
- Require no post curing



Accompanying these handling advantages are a number of important performance advantages. These include:

- Superior adhesion
- Resistance to chemical attack
- Resistance to gouging and abrasion
- Flexibility and resilience
- Inertness
- Freedom from embrittlement
- Impermeability
- Resistance to disbondment forces
- A number of national and international approvals
- A totally monolithic, seamless polymer sheet virtually fused to the substrate
- Special versions modified with anti-microbial and/or ceramic modified additives for additional performance protection



QUALITY

Madison products are designed to last for decades, even in the most aggressive environments, and we have the case studies and technical data to prove it. In addition to numerous approvals from 3rd party tests, UL, AWWA and NSF, we are also an ISO certified facility so you know quality is a top priority.



At Madison we don't simply manufacture and ship coating products. We provide a complete package of coating services designed to satisfy the expectations of our customers. We go beyond the norm to provide our customers with quality, service, and innovation.

MADISON WATER / WASTEWATER SYSTEMS RECOMMENDATIONS

STEEL STRUCTURAL TANKS, PIPE & EQUIPMENT								
Application	Products	Solids %	System	Surface Preparation	Number of Coats	Max.DFT/Coat (mils)	Rec. DFT (mils)	Comments
Exterior exposed	<ul style="list-style-type: none"> •Tufsheen II •AcrylaThane or Polysheen •Tufsheen Precatalyzed 	100	1:1 PUR	SSPC-SP10	1 or more	12	10 or more	Aliphatic polyurethane (aromatic PUR base coat may be needed)
		65-70	1:4 PUR/Acrylic	SSPC-SP6	1 or more	6-8	3-5	
Interior exposed	<ul style="list-style-type: none"> •CorroCote or CorroPipe "S" •AcrylaThane or Polysheen 	72	Mix & apply PUR	SSPC-SP6	1 or more	8-12	7 or more	Aromatic PUR.
		65-70	1:4 PUR/Acrylic	SSPC-SP6	1 or 2	6-8	3-5	Aliphatic PUR.
Immersion for potable water and foodstuffs	<ul style="list-style-type: none"> •CorroCote II PW •CorroPipe II PW •Flexcel II / CorroPipe II Abrasion Coating •EC-120 	100	1:1 PUR	SSPC-SP10	1	Unlimited	12 or more	>= 200 gal.
		100	1:1 PUR	SSPC-SP10	1	Unlimited	15 or more	>= 2" dia.
		100	1:1 PUR	SSPC-SP10	1 or more	Unlimited for fast set	15 or more	Outstanding abrasion and impact resistance.
		100	2:1 Epoxy-PUR	SSPC-SP10	1 or more	12 or more	12 or more	>=16" dia. or 1000 gal.
Immersion for non-potable water	<ul style="list-style-type: none"> •CorroCote II / CorroPipe II UltraLiner •CorroPipe II WasteLiner •Flexcel II TX •CorroCote "S" / CorroPipe "S" •MG-120 	100	1:1 PUR	SSPC-SP10	1	Unlimited	15 or more	The best choice for harsh environment. Economical and excellent performance. A tar extended version. Easy to apply and excellent performance. Easy manual application
		100	1:1 PUR	SSPC-SP10	1 or more	18 or more	15 or more	
		100	1:1 PUR	SSPC-SP10	1	Unlimited	15 or more	
		72	Mix-and-Apply	SSPC-SP10	1 or more	8-12	12 or more	
		100	2:1 Epoxy-PUR	SSPC-SP10	1 or more	12 or more	12 or more	
Below grade	<ul style="list-style-type: none"> •CorroCote II Classic •CorroPipe II TX-15 •CorroClad 2000 •CorroCote Plus / CorroPipe II Omni 	100	1:1 PUR	SSPC-SP10	1 or more	Unlimited for fast set materials	16 or more	A proven technology for tank coatings. A proven pipe coating. A proven pipe coating. A proven technology for tank and pipe coatings.
		100	1:1 PUR	SSPC-SP10	1 or more		18 or more	
		100	1:1 PUR	SSPC-SP10	1		18 or more	
		100	1:1 PUR	SSPC-SP10	1 or more		16 or more	
		100	1:1 PUR	SSPC-SP10	1 or more		16 or more	
High temp. exposed	<ul style="list-style-type: none"> •CorroClad 2000 HT 	100	1:1 PUR	SSPC-SP10	1	Unlimited	18 or more	Excellent adhesion and performance.

FACTORY PRIMED STEEL				DOORS, FRAMES & MISCELLANEOUS EQUIPMENT				
Exterior exposed	•AcrylaThane products	65-70	1:4 PUR/Acrylic	Clean & dry	1	6-8	3-5	Aliphatic polyurethane.
Interior exposed	•AcrylaThane products •GemThane AquaTech	65-70	1:4 PUR/Acrylic	Clean & dry	1	6-8	3-5	Aliphatic polyurethane.
		38	1:10 PUR	Clean & dry	1 or more	2-4	2-3	Water based
DUCTILE OR CAST IRON				PIPE, PUMPS, VALVES AND FITTINGS				
Exterior exposed	•CorroPipe II TX-15 •CorroCote "S"	100	1:1 PUR	Contact your Madison Sales Rep.**	1 or more	Unlimited for fast set 8-12	6 or more	Can be overcoated with Polysheen if color stability needed.
		72	Mix & apply PUR		1 or more		6 or more	
Interior exposed	•CorroCote "S" •AcrylaThane or Polysheen	72	Mix & apply PUR	Contact your Madison Sales Rep.**	1 or 2	8-12	7 or more	Aromatic PUR.
		65-70	1:4 PUR/Acrylic		1 or 2	6-8	3-5	Aliphatic PUR.
Immersion for potable water and foodstuffs	•CorroPipe II PW •CorroPipe II Abrasion Coating •EC-120	100	1:1 PUR	Contact your Madison Sales Rep.**	1	Unlimited	40 or more	for > 6" dia.
		100	1:1 PUR		1	Unlimited	40 or more	Outstanding abrasion resistance.
		100	2:1 Epoxy-PUR		1 or more	12 or more	6 or more	For bell/Spigot
Immersion for non-potable water	•CorroPipe II UltraLiner •CorroPipe II WasteLiner •Flexcel II TX •MG-120	100	1:1 PUR	Contact your Madison Sales Rep.**	1	Unlimited	40 or more	Best choice for harsh environment. Economical and excellent performance. Elastomeric For bell/spigot
		100	1:1 PUR		1 or more	18 or more	40 or more	
		100	1:1 PUR		1	Unlimited	6 or more	
		100	2:1 Epoxy-PUR		1 or more	12 or more		
Below grade	•CorroPipe II TX-15	100	1:1 PUR	Contact your Madison Sales Rep.**	1	Unlimited for fast set	25 or more	A proven technology for ductile and cast iron.
PVC								
Exterior exposed	•AcrylaThane products	65-70	1:4 PUR/Acrylic	Coarse Sandpaper	1	6-8	3-5	Aliphatic polyurethane.
Interior exposed	•AcrylaThane products	65-70	1:4 PUR/Acrylic	Coarse Sandpaper	1	6-8	3-5	Aliphatic polyurethane.
INSULATED PIPE								
Interior exposed	•Polysheen •Tufsheen Precatalyzed •GemThane AquaTech	65-70	1:4 PUR/Acrylic	Clean & dry	1	6-8	3-5 or more	Mix & apply
		68	Single PUR	Clean & dry	1	6-8	3-5 or more	Open & apply
		38	1:10 PUR	Clean & dry	1 or more	2-4	2-3 or more	Water based
CONCRETE & MASONRY				PRECAST, POUR-IN-PLACE, DENSE OR POROUS CMU				
Exterior exposed	•Tufsheen II •AcrylaThane products •Tufsheen Precatalyzed	100	1:1 PUR	Brush blast*	1 or more	12	10 or more	Base coat such as MG-201 or MG-220 may be needed.
		65-70	1:4 PUR/Acrylic	Brush blast*	2 or more	6-8	3-5 or more	
		68	Single (PUR)	Brush blast*	2 or more	6-8	3-5 or more	
Interior exposed	•CorroCote "S" •AcrylaThane products	72	Mix & apply PUR	Brush blast*	1 or 2	8-12	12 or more	Base coat such as MG-201 or MG-220 may be needed.
		65-70	1:4 PUR/Acrylic	Brush blast*	1 or 2	6-8	3-5 or more	

CONCRETE & MASONRY			PRECAST, POUR-IN-PLACE, DENSE OR POROUS CMU					
Immersion for potable water and foodstuffs	•CorroCote II PW	100	1:1 PUR	Sand blast*	1	Unlimited	40 or more	A proven PW coating. A proven PW coating. Outstanding abrasion and impact resistance as well as high elongation. Use as a base coat or on its own.
	•CorroPipe II PW	100	1:1 PUR	Sand blast*	1	Unlimited	40 or more	
	•Flexcel II / CorroPipe II Abrasion Coating	100	1:1 PUR	Sand blast*	1 or more	Unlimited for fast set	40 or more	
	•EC-120 or MG-220	100	2:1 or 1:1 Epoxy-PUR	Sand blast*	1 or more	12 or more	10 or more	
Immersion for non-potable water	•CorroPipe II WasteLiner	100	1:1 PUR	Sand blast*	1	Unlimited	40 or more	Economical, excellent performance High elongation. Easy apply, excellent performance Roller and brush grade. Easy application. Use as a base coat or on its own.
	•Flexcel II TX	100	1:1 PUR	Sand blast*	1	Unlimited	40 or more	
	•CorroPipe II TX-15 Slow Set	80 (zero VOC)	1:1 PUR	Sand blast*	5 or more	8-10	40 or more	
	•CorroPipe "S"	72	Mix & apply PUR	Sand blast*	5 or more	8-12	40 or more	
	•MG-120/125	100	2:1 Epoxy-PUR	Sand blast*	1 or more	12 or more	10 or more	
	•MG-220/225	100	1:1 Epoxy-PUR	Sand blast*	1 or more	12 or more	10 or more	
CONCRETE & MASONRY			PRECAST, POUR-IN-PLACE, DENSE OR POROUS CMU					
Below grade	•CorroPipe II TX-15	100	1:1 PUR	Sand blast*	1 or more	Unlimited for fast set materials	40 or more	CorroCote II Classic can also be used. Rendering or base coat may be needed.
	•CorroCote Plus / CorroPipe II Omni	100	1:1 PUR	Sand blast*	1 or more		40 or more	
CONCRETE FLOORS								
Interior /Exterior exposed	Various high performance floor coating systems available, please contact a Madison representative.							
SECONDARY CONTAINMENT								
Madison has various coatings systems for secondary containment. Contact your Madison representative for proper system selection based on exposure conditions and requirements.								
PLASTER & GYPSUM WALLBOARD								
Interior exposed	•GemThane 1:4 Acrylic	65-70	1:4 PUR/Acrylic	Clean & dry	1	6-8	3-5 or more	Aliphatic PUR.
	•GemThane AquaTech	38	1:10 water based PUR	Clean & dry	1	2-4	2-3 or more	Water based
WOOD								
Interior or exterior exposed	•GemThane 1:4 Acrylic	65-70	1:4 PUR/Acrylic	Clean & dry	1	6-8	3-5	Aliphatic PUR.
	•GemThane AquaTech	38	1:10 water based PUR	Clean & dry	1	2-4	2-3	Water based

Numerous additional coating systems and color options are available. Special AM and CM versions are available and may be recommended as well. Contact your Madison representative for more information.

* After blasting concrete, large holes or honeycombs shall be filled and smoothed to a pinhole free surface with a proper polymeric or cementitious filler. The filler must reach cured state before application of a Madison coating. ** Because the substrate, exposure, and application conditions for the ductile or cast iron structure can vary, it is necessary to contact your Madison representative for surface preparation and other application related recommendations.

PRODUCT DESCRIPTIONS

(refer to Product Information Brochure – “Infrastructural Coatings” for more detail)

ALIPHATIC (EXTERIOR GRADE)

- **TUSFHEEN II:** This fast setting, high build, near 100% solids, solvent free, plural component aliphatic polyurethane system is used to protect outdoor structures such as aboveground storage tanks and fabricated steel structures.
- **ACRYLATHANE:** A series of products including Acrylathane 55, 85, and 5200. They are medium setting, mix-and-apply, high solids (65-70%), totally unique acrylic aliphatic system for the exterior of bulk storage tanks or the architectural finishing of various substrates. Desired build thickness can be achieved by conventional application in only 1 or 2 passes.
- **TUSFHEEN PRECATALYZED OR GEMTHANE PRECATALYZED:** In a direct-to-metal, slower setting, single component format, this is a polymer resin that applies like paint. Our most user-friendly exterior grade polymer cladding.
- **GEMTHANE AQUATECH:** The newest water-dispersable aliphatic polyurethane technology. This mix-and-apply, fast-drying, long pot life, no-odor polyurethane system provides easy application and exceptionally high performance.
- **POLYSHEEN:** A high solids, 1:4 acrylic polyurethane coating specifically designed for pipe exterior protection, providing excellent gloss retention and color fastness.

AROMATIC (IMMERSION & INTERIOR)

- **CORROCOTE “S” AND CORROPIPE “S”:** Easy-to-apply, cold temperature cure, polyurethane coatings and linings for excellent chemical resistance. With VOCs less than 2 lbs/gal., they can be applied by any conventional method. They are excellent floor coatings as well.
- **CORROCOTE II PW AND CORROPIPE II PW:** 100% solids, instant setting, rigid polyurethane coatings certified to ANSI/NSF 61 for potable water use. One coat, no primer required.
- **FLEXCEL II AND CORROPIPE II ABRASION COATING:** These 100% solids elasto-meric polyurethane coatings comply with the requirements of the U.S. Food & Drug Administration 21 CFR 175.300 and 21 CFR 177.1680 for direct contact with dry and wet food. They are approved under ANSI/NSF 61.
- **CORROCOTE II ULTRALINER AND CORROPIPE II ULTRALINER:** 100% solids, pure resin based, instant setting, rigid polyurethane used as a liner for harsh environments. They exhibit outstanding chemical resistance to strong acids, alkalines, salts, and solvents. When only the best lining will do.
- **CORROPIPE II WASTELINER:** A 100% solids, hydrocarbon extended liner which is not only economical but also offers high performance.
- **FLEXCEL II TX:** An economical hydrocarbon extended alternative to Flexcel II or Corropipe II Abrasion Coating for wastewater application - where higher elongation and hydrophobicity are desired.
- **CORROCOTE II CLASSIC:** Madison’s original general purpose hydrocarbon extended, 100% solids polyurethane

EPOXY HYBRIDS

which has been protecting underground tanks, ocean pilings, structural steel and other submersed and subterranean structures since 1975.

- **CORROPIPE II TX-15:** A 100% solids, general purpose polyurethane technology for the interior protection of steel, ductile iron and concrete pipe, and all their fittings. Similar to "Classic" but specifically formulated for coating pipe.
- **CORROCLAD 2000:** A 100% solids, pure resin, two component polyurethane coating which offers a superior alternative to fusion bond epoxy on the exterior of steel pipelines, where impressed current cathodic protection systems are used; the ultimate system for pipe interiors.
- **CORROCLAD 2000 HT:** A high temperature version of Corroclad 2000, which exhibits excellent physical properties and resistance to cathodic disbondment at temperatures up to 90°C/195°F.
- **CORROCOTE PLUS AND CORROPIPE II OMNI:** All purpose 100% solids polyurethane coatings good for most I.D. and O.D. applications. Different setting times and colors to suit any application conditions. For use where a wide variety of setting times and color choice are important.
- **CORROPIPE II SLOW SET:** An 80% solids but zero VOC, hydrocarbon extended, two component polyurethane system for easy application by any conventional methods. An alternative to the above systems that require plural application equipment.



- **EC-120:** A 100% solids, 2:1, NSF 61 approved, epoxy-polyurethane hybrid system designed for potable water application. This material can be applied through spray, brush, or roller. It can be used for large repair or pipe joint application.
- **MG-120/125:** Similar to EC-120 but not designed for potable water application. MG-125 is thicker than MG-120 and can be as a resurfacer.
- **MG-201/220/225:** 100% solids, 1:1, epoxy-polyurethane hybrid systems designed for sealing, rendering, or resurfacing concrete surfaces, to be top-coated with Madison's polyurethane coatings. They can also be used on their own for less critical applications.

PRIMERS

- **CORROZINC:** A true single component, zinc rich, polyurethane based primer for ferrous surfaces. It has a dry-to-touch time of about 30 minutes at 20°C/70°F.
- **CORROPRIME 85:** True single component, aluminum rich, polyurethane-based primer which will cure at ambient temperatures down to -10°C/15°F.
- **ALUMIZINC 2000:** The ultimate primer - a mix-and-apply, polyurethane-based primer which combines various corrosion protection technologies: galvanizing, aluminum and MIOX barrier protection, plus corrosion inhibitors. It outperforms every high performance primer we've ever seen, ours or the competitors.

