

# **Bridge & Wall Coatings**

Products to Cure, Protect and Beautify Concrete





## ONE OF THE BROADEST OFFERINGS OF PRODUCTS FOR CONCRETE BRIDGES AND WALLS

ChemMasters' coatings protect many of the nation's most recognizable and strategically important structures. From military defense to transportation, infrastructure to commercial buildings...ChemMasters' coatings protect, beautify and prolong the life of concrete.

Wherever concrete is exposed to the elements, ChemMasters has a coating to suit your needs.

- Departments of Transportation (DOT) & Municipal Engineering
  - -Bridges

Residential

- -Sound Wall Barriers
- Commercial Buildings
  - -Building Exteriors
  - -Retaining Walls
  - -Stucco Exteriors
  - -Exposed Block Foundations
  - -Retaining Walls

ChemMasters offers a full range of chemistries to meet the demanding needs of harsh environments and the aesthetic requirements of any home or building owner. ChemMasters architectural coatings are the culmination of cutting edge development in materials, formulations, and performance. And they're true to our philosophy of manufacturing world-class products to protect and beautify concrete.



## **Epoxy / Urethane Systems**

Epoxy/urethane coating systems are the preferred means of protecting high value concrete structures with extended design lives. As a system created expressly for concrete, their adhesion, UV stability, and waterproofing capabilities are proven technologies for long-term (15+ year) protection.

#### Safe-Cure® & Seal EPX

Two-component epoxy cure & protect and primer. Available in clear or pigmented formulations. Specifications: ASTM C309, Type 1 or 2 (pigmented), Class A & B; NCHRP 244 Series II & IV; ASTM C1315, Type I or II (pigmented), Class B; USDA when cured

#### Duraguard™ 310CRU

Two-component, chemical resistant, aliphatic urethane. Standard and custom pigments available. Use Safe-Cure & Seal EPX as primer as part of DOT listed epoxy/urethane coating system. Standard and custom pigments available. *Specifications: ACI 302.89, Table 1.1; USDA when cured* 

#### Green-Thane™ 310WB

Two-component, water-based, chemical resistant, aliphatic urethane. Standard and custom pigments available. Use Safe-Cure & Seal EXP as primer as part of DOT listed epoxy/urethane coating system. Standard and custom pigments available. Low-VOC (<100 g/L). Specifications: ACI 302.89, Table 1.1; USDA when cured

#### Safe-Cure® & Seal EPX

Film Formation	Cross-Linking	Dry Film Thickness	2.5 mil clear 3.3 mil colors
Recoat Time	Tack free up to 72 hours (call ChemMasters for instructions past 72 hours)	Percent Solids Clear Pigmented	31% 38 – 45%
Curing Efficiency	ASTM C1315, Type 1, Class B	Moisture Loss ASTM C 156	< 0.40 g/cm² in 72 hours
Water/Salt Resistance NCHRP 244 Series II & Series IV	86 – 92% Reduction	Abrasion Resistance Tabor 1000g/1000 cycles/ CS-17 Wheels	33.1 mg
Abrasion & Impact Resistance	Excellent	Shear Bond Strength–7 Days ASTM C 882	1,000 psi (21.4 MPa)
Tensile Bond Strength–7 Days Fresh Concrete Etched or Blasted	215-220 psi (1.4-1.5 MPa) 350-450 psi (2.4-3.1 MPa)	Gloss Retention	Excellent/Good
Color Retention	Moderate	Drying Time	< 4 hours
Pot Life	30 minutes		

#### GreenThane™ 310 WB

Film Formation	Cross-Linking	Dry Film Thickness	4 mil @ 200 ft²/gal
Water Absorption @ 50 Days	0.2 - 0.4%	Percent Solids	66 – 72%
Water/Salt Resistance NCHRP 244 Series II & Series IV	86 – 92%	Water Absorption ASTM C 642 – 2 day/50 day	< 0.5% / < 2.0%
Salt Resistance ASTM B 117 73, 2,000 hrs	No Effect	QUV Weathering – 8,000 hrs ASTM D 4587	98% Gloss Retention 1∆E Shift
Efflorescence Resistance	Excellent	Deicer Scaling ASTM C 672	0% @ 100 cycles
Abrasion & Impact Resistance	Excellent	Abrasion Resistance Tabor 1000g/1000 cycles/ CS-17 Wheels	25 grams
Color Retention	Excellent/Superior	Adhesion	> 150 psi
Tensile Strength	2,200 psi	Gloss Retention	Excellent/Superior
Durability	15+ Years	Percent Elongation	10 – 15%
Solvent Resistance 100 Double Rubs	No Effect	Pensil Hardness ASTM D 3363	> 2H

Markets: DOT / Municipal - Bridge Parapets, Bridge Columns, Precast Spans, Bridge Substructure & Superstructure

### 100% Elastomeric Acrylic Coating

#### **ColorLastic**™

A pigmented, waterproof coating for concrete and masonry. ColorLastic is produced with 100% elastomeric acrylic resins and formulated for superior aging characteristics. ColorLastic bridges hairline cracks, withstands substrate movement and accommodates rapid changes in temperature.

Federal Specifications: TTC-555B & TTP 141D



#### **USES**

- Coating for exterior or interior, above grade vertical and overhead concrete and masonry
- Functional, yet decorative, waterproof sealer for poured in place concrete, precast members, block, brick, plaster or stucco surfaces.
- Topcoat for ChemSeal or other cementitious coatings
- Provides a uniform matte color following repairs of deteriorated surfaces exposed to severe weathering

#### **ADVANTAGES**

- Exceptionally durable film resists wind driven rain, mold, mildew, and dirt
- Excellent elongation and recovery properties
- Optimum water vapor permeability eliminates cracking and peeling
- Withstands extremes in thermal cycling; maintains flexibility from season to season
- Ultraviolet (UV) light, stable, fade resistant
- Seals and waterproofs hairline cracks
- Extremely low V.O.C. content, water based for environmental impact compliance
- Available in nine architectural colors; special color matching available subject to minimum order and lead time requirements

#### **ColorLastic**<sup>™</sup>

Film Formation	Evaporation/Coalescence	Dry Film Thickness	16 mil – 2 coats @ 100 ft²/gal
Water Absorption @ 50 Days	Less than 1.0%	Salt Spray ASTM B 117	300 hours
Water/Salt Resistance NCHRP 244	75 – 80%	Water Absorption ASTM C 642 – 2 day / 50 day	< 0.5% / < 2.0%
Deicer Scaling – 50 Cycles ASTM C 672	Visual Rating – 1 Scaling Mass – 0	Freeze/Thaw Cycling – 300 Cycles, ASTM C 666	97 Durability Factor
Weatherometer –	No Cracking, Peeling, Flaking,	Adhesion –Direct Tensile	> 75 psi
5,000 hours ASTM G 26	Chipping or Delamination	Percent Solids	50 - 62%
	0 1	Gloss Retention	Very Good
Abrasion & Impact Resistance	Good	Percent Elongation	200 - 300%
Color Retention	Very Good	1/8" Mandrel Flexibility	75°F (24°C) pass 0°F (-17°C) pass
Tensile Strength	200 psi (1.4 MPa) @ 75°F (24°C)		-15°F (-26°C) pass
ASTM D 412 modified	600 psi (4 MPa) @ 0°F (-17°C)	Tensile Elongation	300% @ 75°F (24°C)
Durability	10+ Years	ASTM D 412	115% @ 0°F (-17°C)
Water Vapor Transmission ASTM E 96	10.5 perms @ 20 mil film	Wind Driven Rain Resistance Fed Spec TT-C-555-B	Water Penetration – None Blister Density/Size – None

Markets: DOT / Municipal – Sound Wall Barriers, Bridge Parapets, Bridge Columns, Precast Spans,
Bridge Substructure & Superstructure

## Heavy Bodied, 100% Acrylic Emulsion, Decorative Coatings

#### **TextureDOT™ & TextureDOT™ Smooth**

A heavy bodied, 100% acrylic emulsion, decorative, textured coating. It develops a tough, durable, water repellent film that is alkali, acid and mildew resistant. TextureDOT meets ASTM C1315 as an architectural cure & seal, and is available in both textured and smooth versions. Specifications: ASTM C309; USDA when cured

#### **USES**

- Interior or exterior, vertical and overhead concrete and masonry surfaces
- Poured and formed walls, block, brick, cement plaster, stucco, wall board, and sheet rock
- Sealing jersey and median barriers, sound barrier walls, bridge abutments, and retaining walls
- Decorative water repellent finish
- Textured finish hides defects in the substrate

#### **ADVANTAGES**

- Superior color stability under harsh ultraviolet light exposure
- Excellent hiding power minimizes minor surface imperfections and defects
- Resistant to stains, dirt, and atmospheric pollutants
- Provides uniformly colored, textured finish
- Exceptional moisture vapor transmission
- Will not crack or peel
- Expansion and contraction characteristics compatible with concrete and masonry surfaces
- Durable, outlasts standard paints 2:1
- Available in 9 standard colors or any federal color for DOT applications.



#### **TextureDOT**<sup>™</sup>

Film Formation	Evaporation/Coalescing	Dry Film Thickness	23 mil per coat @
Percent Solids	72 – 74%		50 ft² per gallon
Curing Efficiency: Moisture Loss @ 72 hours	0.20 kg/m²	Salt Spray – 2,000 hours ASTM B 117	No Effect
Water/Salt Resistance NCHRP 244, Series II & IV	21 days immersion, 6 months - slab	Deicer Scaling – 50 Cycles ASTM C 672	Visual Rating – 0 Scaling Mass – 0
Weatherometer – 5,000 hours ASTM G 23	No Peeling or Delamination	Freeze/Thaw Cycling – 300 Cycles, ASTM C 666	98 Durability Factor
Impact Resistance ASTM D 2794	24 in-lbs direct impact	Mandrel Flexibility	180° bend over 1" mandrel
		Abrasion Resistance – 3,000	No Peeling or Delamination
Adhesion – Blister Box Method, 2,000 hours	No Blistering or Peeling	Liters Falling Sand, ASTM D 968	
		Durability	12+ Years

Markets: DOT / Municipal – Sound Wall Barriers, Jersey Barriers

## 100% Acrylic Coatings

#### **ColorCoat**™

A heavy bodied 100% acrylic emulsion decorative coating specifically formulated to withstand outdoor exposure on concrete, masonry, stucco or cement plaster. It develops a tough durable water repellent film that is UV-stable, high gloss, alkali, and acid resistant. Federal Specifications: TTC-555B & TTP 141D



#### **USES**

- Exterior or interior, vertical and overhead, concrete and masonry
- Poured in place, formed walls, block, brick, or stucco
- Functional and decorative water repellent finish
- Provides a uniform matte color following repairs of deteriorated surfaces

#### **ADVANTAGES**

- Excellent adhesion and weathering properties
- Superior moisture vapor transmission through substrate reduces cracking and peeling
- Protects against airborne dirt and pollutants
- Non-yellowing and fade resistant
- Available in a wide variety of colors

#### **ColorCoat**<sup>™</sup>

Film Formation	Evaporation/Coalescence	Salt Spray ASTM B 117 –	No Effect
Water Absorption @ 50 Days	1 – 2%	2,000 hours	
Water/Salt Resistance NCHRP 244	75 – 80%	Water Absorption ASTM C 642 – 2 day/50 day	< 0.5% / < 2.0%
Deicer Scaling – 50 Cycles ASTM C 672	Visual Rating – 0 Scaling Mass – 0	Freeze/Thaw Cycling – 300 Cycles ASTM C 666	97 Durability Factor
Weatherometer ASTM G 26	5,000 hours, No Peeling		150 :
Adhesion -	2,000 hours	Adhesion – Direct Tensile	> 150 psi
Blister Box Method	No Blistering or Peeling	Gloss Retention	Very Good
Fading (Fade-O-Meter)	100 hours	Percent Elongation	10 – 20%
Tensile Strength	800 psi	1/8" Mandrel Flexibility	75°F (24°C) pass
Durability	10+ Years		0°F (-17°C) pass -15°F (-26°C) pass
Moisture Vapor Transmission Rate ASTM D 1653	18 perms @ 6 mil dry film thickness	Fire Hazard ASTM E 84	Smoke density, fuel contribution & flame
Dry Film Thickness	12 – 14 mil (2 coats)		spread all <25 (NFPA
Percent Solids	58 – 62%		Class A)

Markets: DOT / Municipal – Sound Wall Barriers, Bridge Parapets, Bridge Columns, Precast Spans, Bridge Substructure & Superstructure

## 100% Siliconized Acrylic Stain

#### ColorCoat™ XL

A heavy bodied 100% siliconized acrylic emulsion specifically formulated for superior water shedding characteristics when applied to exterior concrete, masonry, stucco or cement plaster. ColorCoat XL has exceptional penetration and adhesion, forming a tough, durable, water repellent film that is highly UV-stable, high gloss, alkali, acid, mildew resistant and contains an inhibitor to prevent mold and fungal growth. Federal Specifications: TTC-555B & TTP 141D



#### **USES**

- Exterior or interior, vertical and overhead, concrete and masonry
- Poured in place, formed walls, block, brick or stucco
- Functional and decorative water repellent finish
- Provides a uniform matte color following repairs of deteriorated surfaces

#### **ADVANTAGES**

- Excellent penetration, adhesion and weathering properties
- Siliconized acrylic for enhanced water shedding characteristics
- Superior moisture vapor transmission through substrate reduces cracking and peeling
- Protects against airborne dirt and pollutants
- Non-yellowing and fade resistant
- Available in a wide variety of colors

#### ColorCoat™ XL

Film Formation Deicer Scaling 50 Cycles ASTM C 672 (Avg. 3 Samples)	Evaporation/Coalescence Visual Rating – 0 Mass Loss – 0.0 lb/ft²	ASTM G53-13, Cycle 1 Twin Carbon Arc Weatherometer Exposure/ 2,500 Hours (Avg. 3 Samples)	Visual: Gray Scale Rating 4 to 5 Very slight color change / loss of gloss / surface spotting. No other detrimental effects.
Deicer Scaling 100 Cycles	Visual Rating – 0.8 Mass Loss – 0.01 lb/ft²		Adhesion: Rating 5 No peeling or removal
ASTM C 672		Gloss Retention	Very Good
(Avg. 3 Samples)		Water Resistance	Very Good
Durability	10+ Years	AASHTO T 259	84.4% Reduction @
Moisture Vapor Transmission Rate	17.5 Perms Average of 3 Samples	Resistance of Concrete to Chloride Ion Penetration	0.625 to 0.50 inch depth
ASTM D 1653	·	AASHTO T 260	89.2% Reduction @
Dry Film Thickness	12 – 14 mil (2 coats)	Sampling & Testing for	0.50 to 1.0 inch depth
Percent Solids	55 – 59%	Chloride Ion in Concrete & Concrete Raw Materials	

Markets: DOT / Municipal – Sound Wall Barriers, Bridge Parapets, Bridge Columns, Precast Spans, Bridge Substructure & Superstructure

### Anti-Graffiti Coatings

#### Graffiti Stopper™

A two component polyester urethane developed specifically to protect surfaces from graffiti. Once applied to most surfaces, Graffiti Stopper will form a durable coating to reduce the adhesion of most coatings, paints and inks to the surface. Paints will typically bead on the surface and make the development of letters or designs difficult. Once dried on the surface, paints or inks can be removed without the use of harsh chemicals. Graffiti can be removed with **Graffiti Eraser™** from ChemMasters and a pressure washing without leaving a shadow on the surface or damaging the coating. Available in high gloss, satin, or flat finishes.

## Watch our "How To" video to learn more about Graffiti Stopper and Graffiti Eraser.



#### **USES**

- Exterior concrete, masonry, metal or galvanized metals
- Traffic signs, rail cars, sound barriers, bridges, bathroom stalls, schools or other areas subject to attack by graffiti

#### **ADVANTAGES**

- Treated surfaces are easy to clean
- Adheres tenaciously to a wide variety of substrates
- Protects surfaces regardless of substrate texture (Smooth surfaces will clean more easily)
- UV stable and will not yellow
- Easily mixed and applied with brush, roller or sprayer



Graffiti Eraser removes graffiti from substrates coated with Graffiti Stopper.

#### Graffiti Stopper™ 1K

A single component non-sacrificial, solvent-borne moisture cure polysiloxane coating developed specifically to protect surfaces from graffiti. Once applied to many surfaces, Graffiti Stopper 1K will reduce the adhesion of most coatings, paints and inks. Paints will typically bead on the surface, detracting from the appearance of letters, designs and graffiti artwork, acting as a deterrence. Once dried on the surface, paints or inks can be removed without the use of harsh chemicals, often with soap and water without leaving a shadow on the surface or damaging the underlying coating.

#### **USES**

- Exterior concrete, masonry, metal or galvanized metals
- Traffic signs, rail cars, sound barriers, bridges, bathroom stalls, schools or other areas subject to attack by graffiti

#### **ADVANTAGES**

- Treated surfaces are easy to clean with water & brush
- Adheres tenaciously to a wide variety of substrates
- Protects surfaces regardless of substrate texture (Smooth surfaces will clean more easily)
- UV stable and will not yellow
- Easily applied with brush, roller or sprayer

#### Graffiti Seal™

A single component, water based, sacrificial coating system for easy and environmentally safe removal of graffiti.

#### **USES**

- Exterior concrete, masonry, metal or galvanized metals
- Traffic signs, rail cars, sound barriers, bridges, bathroom stalls, schools, or other areas subject to attack by graffiti

#### **ADVANTAGES**

- Complies with National Volatile Organic Compound Emission Standards for Architectural Coatings, Federal EPA Regulation 40 CFR Part 59
- 0% V.O.C. content, biodegradable, odorless
- Breathable for excellent moisture vapor transmission
- Easy to apply and remove
- Will not change the appearance of the substrate
- Durable and non-yellowing









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