



**PERFORMANCE
LIKE NOTHING ELSE**



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Gary, Indiana 46404



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chemcoaters.com



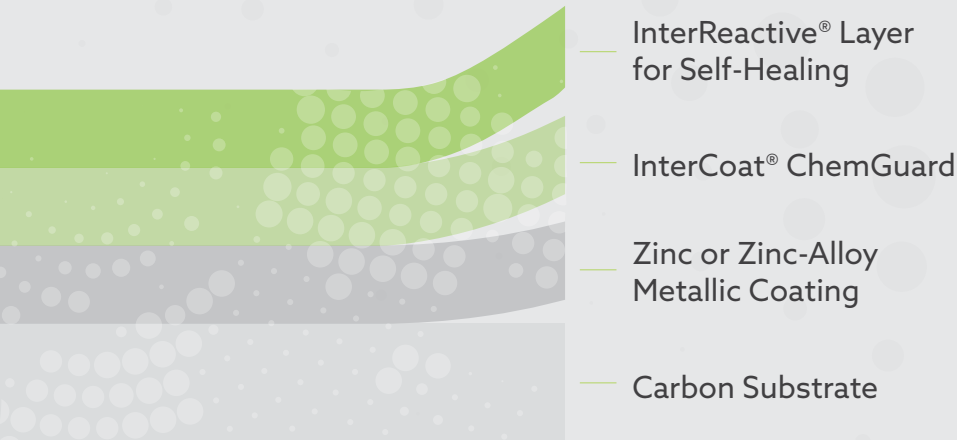
info@chemcoaters.com



WHAT IS INTERCOAT® CHEMGUARD?

InterCoat®ChemGuard is a line of versatile, customizable, corrosion-inhibiting coatings that create a permanent molecular bond with most zinc and zinc-alloy coated substrates such as hot dipped galvanized, galvaneal, electrogalvanized, and ZAM®. This bond, which we call InterReactive®, allows for substrate self-healing and cut-edge protection and is illustrated in the graphic below. This mechanism is what sets ChemGuard apart, with over 15 patents worldwide. It is also RoHS and Prop 65 compliant.

Cross-Section Diagram of InterReactive® Coating as Applied to Any Zinc or Zinc-Iron Alloy Metallic Coated Substrate (EG, HDG, GNNL, ZAM®)



InterCoat® ChemGuard is available in standard 'mill finish' as well as black and gray tints, and in some cases replaces the need for post painting applications. It can be used where "pre-patina" / natural finishes are desired.



InterCoat®ChemGuard enhances zinc performance so much so that our customers can buy steel at a lower zinc coating weight and experience equivalent or even improved performance. When tested in a flat panel ASTM B117 salt spray test (third party), our product on a hot-dipped galvanized G30 outperforms even a G235 with a hexavalent chemtreatment.



InterCoat® ChemGuard was designed to produce superior corrosion protection while also embodying customizable characteristics to aid in secondary processing like slitting, stamping, welding, and painting/adhesion promotion. There is an existing ChemGuard formulation that fits almost every production setting.

If one does not exist, our R&D team is ready to custom engineer a ChemGuard coating that best meets your needs.



Find your InterCoat® ChemGuard formulation using our Solution Finder!

MARKETS AND APPLICATIONS

Construction

Stud, grade board, various clips, and hangers
Tinted ChemGuard formulations available for roofing and building panels



Bus/ Truck/ Trailer

Driver platform, and truck cab floor
Various aftermarket parts

Packaging

drum chime and ring stock

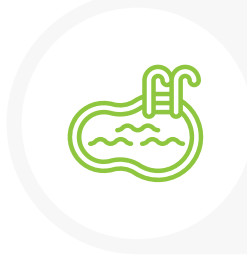
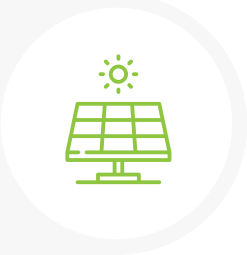


Agriculture

Fans, building components, and other production and housing equipment

Solar

Framing components, brackets, ballast bay, and other components

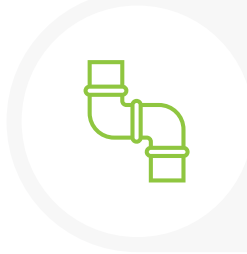


Swimming Pool

Ideal as a replacement to G235 for in-ground applications

Automotive

Rocker arm and other covers, sunroof brackets, various electronic housings, and areas prone to corrosion like exposed undercarriage components



Tube & Pipe





Suitable as a life extender for galvanized tube, such as ERW tube



Compatibility & Corrosion Performance

InterCoat® ChemGuard is compatible with most non-passivated zinc or zinc-alloy coated substrates, such as GI, GA, EG, and ZAM®.

ASTM B117 Salt Spray Results

HDG G235 Hexavalent Chemtreat (Cr-VI)		HDG G40 Intercoat® ChemGuard (RoHS)	
			
800 Hours	1,500 Hours	800 Hours	1,500 Hours

ASTM B117 Salt Spray Results For:

Electro-Galvanized 30G/30G			
Uncoated	InterCoat® ChemGuard 320		
			
96 Hours	750 Hours	1,000 Hours	1,100 Hours
Galvanneal - A40 - InterCoat® ChemGuard 315			
			
504 Hours	1,008 Hours	1,512 Hours	
Zinc-Aluminum-Magnesium Coated Substrate			
			
Hexavalent Chromium Chemtreat at 4,032 Hours	InterCoat® ChemGuard 315 at 11,256 Hours		

Performance After Secondary Processing

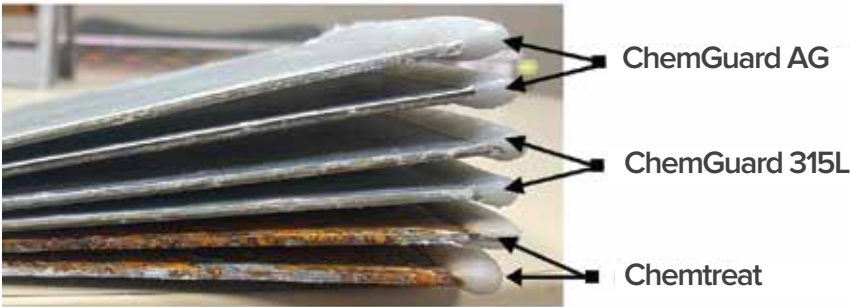
Note: All photos are from an ASTM B117 salt spray test, unless otherwise specified

All standard secondary processing practices (slitting, CTL, blanking) are compatible with InterCoat® ChemGuard.

CUT EDGES

Thanks to ChemGuard's self-healing InterReative® technology, cut edges and perforations are no match.

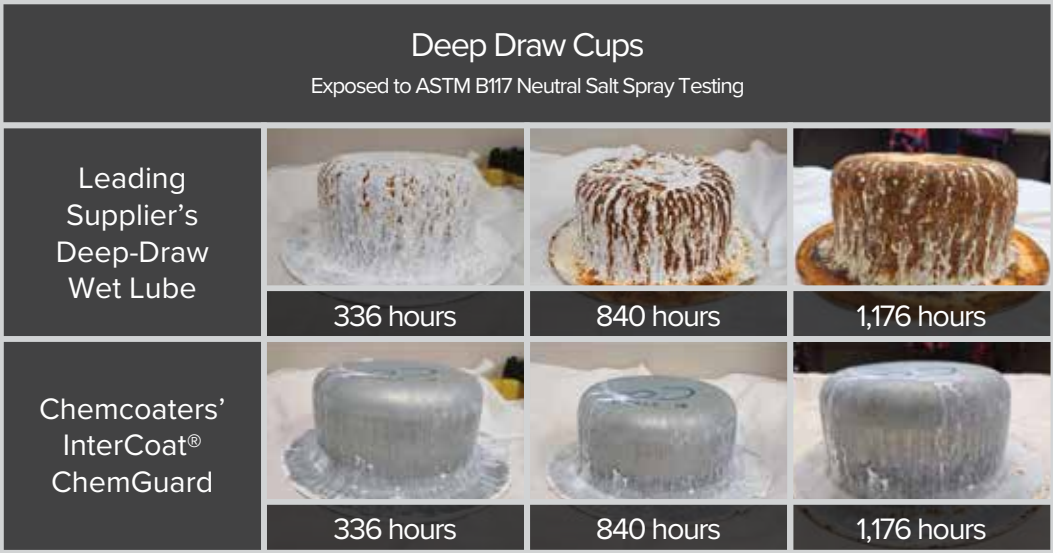
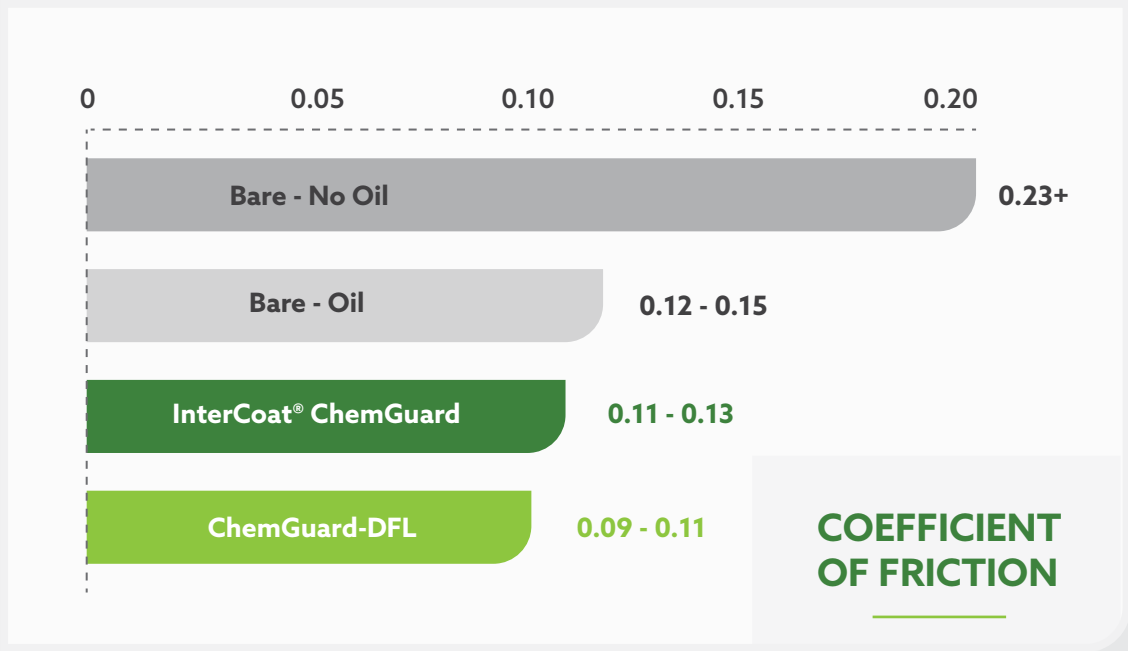
Cut Edge Results
on HDG G40- 840
Hours Exposure



1,000 Hours
Exposure



STAMPING/FORMING



Performance After Secondary Processing

PAINTING

InterCoat® ChemGuard can extend its patented protection to further enhance post-painted applications while remaining compatible with your existing downstream processing.

InterCoat® ChemGuard continues to protect the underlying substrate even after the paint fails.



Powder



ECOAT & BIW



Spray

POWDER & SPRAY COATING

4,000 Hours Exposure



VS



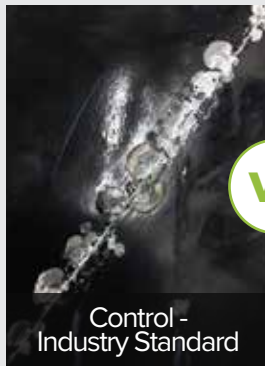
Control - HDG G40

HDG G40
w/ ChemGuard

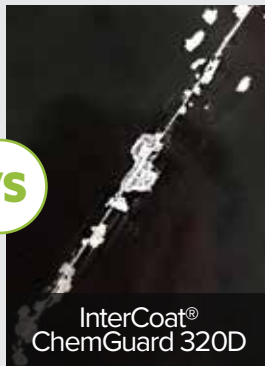
*Autonomous 5 Stage Powder Coat Line.

ELECTROCOATING (ECOAT) & BIW

750 Hours Exposure



VS



Control -
Industry Standard

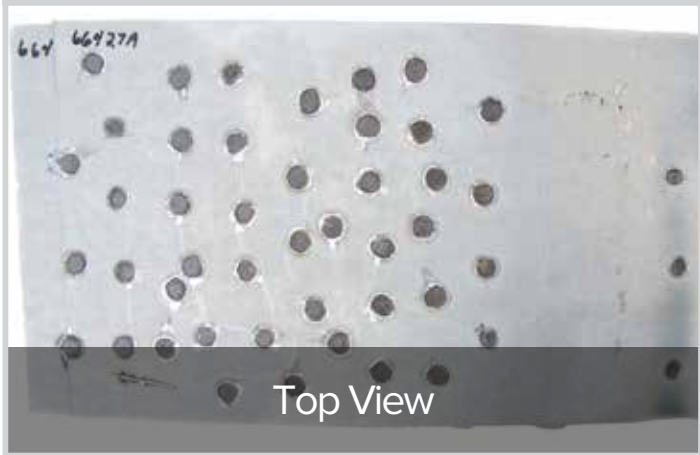
InterCoat®
ChemGuard 320D

WELDING

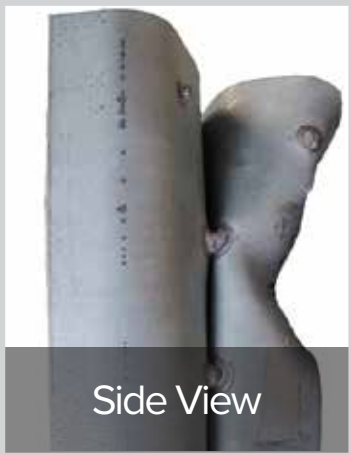
ChemGuard has been utilized in various welding applications.

60G/60G HDG Coated with InterCoat® ChemGuard

(Robotic Welded Sample)



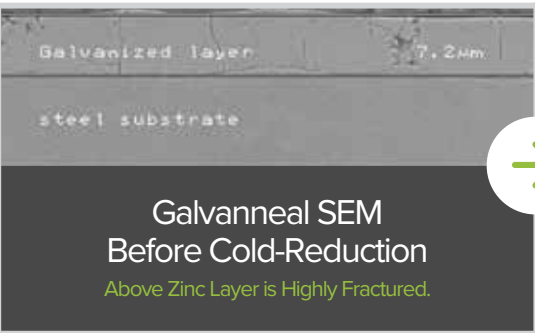
Top View



Side View

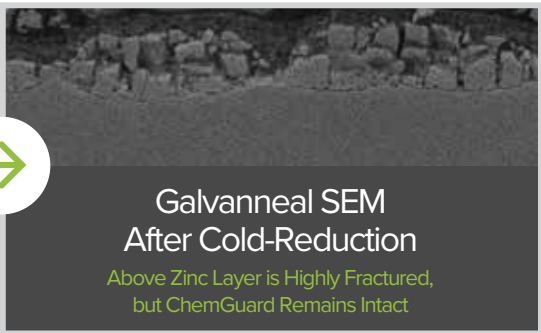
COLD REDUCTION

InterCoat® ChemGuard can be cold-reduced up to 50% and maintain its corrosion resistant properties.



Galvanneal SEM
Before Cold-Reduction

Above Zinc Layer is Highly Fractured.



Galvanneal SEM
After Cold-Reduction

Above Zinc Layer is Highly Fractured,
but ChemGuard Remains Intact

Other Testing

At Chemcoaters, we approach everything with an R&D focus. Because of InterCoat® ChemGuard's versatility, our customers' requirements vary greatly based on application. We have put ChemGuard through many paces since its inception in 2010, and never hesitate to learn more.

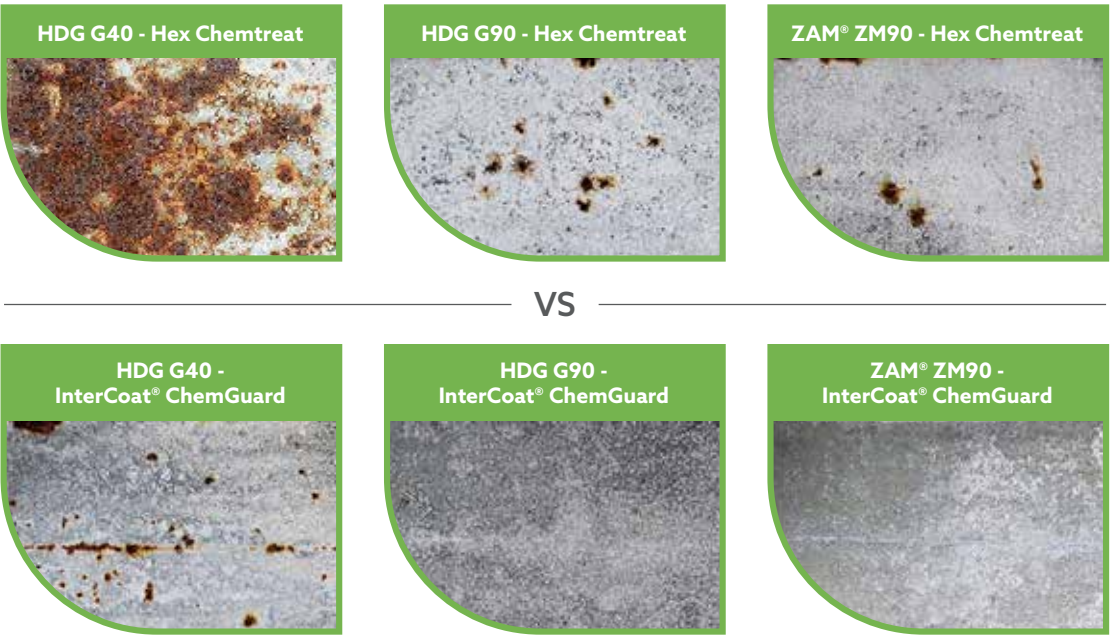
If there is a study you'd like to see that does not appear here, please don't hesitate to reach out to our team.

SULFUR DIOXIDE



AGRICULTURAL MARKETS (AMMONIA)

Accelerated Animal Confinement Chamber | All Samples Exposed to 1,200 Hours



More information can be found on our website, including a white paper on experimental design.

OUTDOOR

We currently have had InterCoat® ChemGuard panels in-test in both desert and subtropical conditions for five years and counting- with minimal, if any, corrosion.

SUBTROPICAL REGION

Outdoor Weathering Testing - Subtropical Region					
Q-Lab Florida Facility					
GA A40 +InterCoat Chemguard 315L					
	1 Year Exposure 0% White Rust 0% Red Rust	2 Year Exposure 0% White Rust 0% Red Rust	3 Year Exposure 0% White Rust 0% Red Rust	4 Year Exposure 0% White Rust 0% Red Rust	5 Year Exposure 0% White Rust 0% Red Rust

Outdoor Weathering Testing - Subtropical Region					
Q-Lab Florida Facility					
HDG G30 +InterCoat Chemguard 315L					
	1 Year Exposure 0% White Rust 0% Red Rust	2 Year Exposure 0% White Rust 0% Red Rust	3 Year Exposure 0% White Rust 0% Red Rust	4 Year Exposure 0% White Rust 0% Red Rust	5 Year Exposure 0% White Rust 0% Red Rust

Outdoor Weathering Testing - Subtropical Region					
Q-Lab Florida Facility					
ZAM® + InterCoat Chemguard 315L					
	1 Year Exposure 0% White Rust 0% Red Rust	2 Year Exposure 0% White Rust 0% Red Rust	3 Year Exposure 0% White Rust 0% Red Rust	4 Year Exposure 0% White Rust 0% Red Rust	5 Year Exposure 0% White Rust 0% Red Rust

DESERT REGION

Outdoor Weathering Testing - Desert Region					
Q-Lab Arizona Facility					
GA A40 +InterCoat Chemguard 315L					
	1 Year Exposure 0% White Rust 0% Red Rust	2 Year Exposure 0% White Rust 0% Red Rust	3 Year Exposure 0% White Rust 0% Red Rust	4 Year Exposure 0% White Rust 0% Red Rust	5 Year Exposure 0% White Rust 0% Red Rust

Outdoor Weathering Testing - Desert Region					
Q-Lab Arizona Facility					
HDG G30 +InterCoat Chemguard 315L					
	1 Year Exposure 0% White Rust 0% Red Rust	2 Year Exposure 0% White Rust 0% Red Rust	3 Year Exposure 0% White Rust 0% Red Rust	4 Year Exposure 0% White Rust 0% Red Rust	5 Year Exposure 0% White Rust 0% Red Rust

Outdoor Weathering Testing - Desert Region					
Q-Lab Arizona Facility					
ZAM® + InterCoat Chemguard 315L					
	1 Year Exposure 0% White Rust 0% Red Rust	2 Year Exposure 0% White Rust 0% Red Rust	3 Year Exposure 0% White Rust 0% Red Rust	4 Year Exposure 0% White Rust 0% Red Rust	5 Year Exposure 0% White Rust 0% Red Rust

GRAVELOMETER

Photos below are after ASTM D3170 Gravelometer and followed by ASTM B117 Salt Spray Testing of both untreated HDG G60 and ChemGuard-coated HDG G30.

Exposed 500 Hours in ASTM B117

Exposed to Gravelometer HDG G30 InterCoat® ChemGuard 315L	Control - No Exposure HDG G30 InterCoat® ChemGuard 315L	Exposed to Gravelometer HDG G60 Bare - No Coating	Control - No Exposure HDG G60 Bare - No Coating

Exposed 1,000 Hours in ASTM B117

Exposed to Gravelometer HDG G30 InterCoat® ChemGuard 315L	Control - No Exposure HDG G30 InterCoat® ChemGuard 315L	Exposed to Gravelometer HDG G60 Bare - No Coating	Control - No Exposure HDG G60 Bare - No Coating

Exposed 1,750 Hours in ASTM B117

Exposed to Gravelometer HDG G30 InterCoat® ChemGuard 315L	Control - No Exposure HDG G30 InterCoat® ChemGuard 315L

TABER ABRAISON

Results of Taber Abrasion followed by ASTM B117 Salt Spray

Industry Leading TFA (CrVI)		InterCoat® ChemGuard 365L TFA (RoHS)	
Before NSS	672 Hours	Before NSS	672 Hours

InterCoat® ChemGuard 315L (RoHS)		InterCoat® ChemGuard 315 + DFL (RoHS)	
Before NSS	672 Hours	Before NSS	672 Hours

CHEMCOATERS CC

ENGINEERING STEEL PERFORMANCE



Chemcoaters LLC is a coil-coating and coatings development company located in Gary, IN. For over 20 years, we have been the premier coil coating company in the industry, known for precision and excellence. We serve steel producers, service centers and manufacturers utilizing the resources of our custom designed line.

In everything we do, we push to redefine the steel industry. Everyone tries to solve customer problems; we tackle industry problems before our customers ask.

InterCoat® ChemGuard is made and applied in-house at Chemcoaters in Gary, IN. For additional service requirements or opportunities requiring the use of another coil-coating facility, please inquire.

LINE SPECIFICATIONS

Gauge	Minimum	0.008"
	Maximum	0.125"
Width	Minimum	20"
	Maximum	72"
Coil Size	Coil Weight	72,000 lbs max
	O.D.	Minimum 34"
		Maximum 84"
	I.D.	20" & 24"
*Cross Section	Maximum	6.3"