



# HIGH PERFORMANCE COATINGS



**CORTEC**  
CORPORATION

*Environmentally Safe VpCI®/MCI® Technologies*



## CORTEC® VpCI® PRODUCTS SOLVE A WIDE VARIETY OF CORROSION PROBLEMS

VpCIs protect a multitude of metal products. Spraying or dipping metals with VpCIs provides fast and economical protection for exterior and interior surfaces. Our technically trained staff can help you decide which product you need for long lasting and complete protection of your corrosion sensitive products.

## PRODUCTIVITY, INVESTMENT PROTECTION AND COST REDUCTION

The total economic loss from metal corrosion can approach a staggering 5%. This huge loss comes from products that must be sold as a lower grade; or must be repickled, reprocessed or scrapped due to corrosive attack while in the plant. This leads to lost productivity. The high cost of corrosion also includes rust claims and freight costs for returned goods.

## THE INDUSTRIAL-STRENGTH EDGE IN SAFE VpCI® CORROSION PROTECTION

Cortec® offers environmentally safe solutions for all of your corrosion problems.

**Our temporary coatings come off as easily as they go on, and last for years when necessary.**

Cortec® coatings provide temporary protection during in-plant processing, shipment or storage. Our coatings offer the same performance/environmental standards as permanent applications, and are easily removed with our, or any, environmentally safe cleaner. In many situations, they do not need to be removed at all.



*Cortec's temporary coatings offer years of protection, but can also be easily removed after shipping or storage.*

## CORTEC® COATINGS PROVIDE PERMANENT PROTECTION FOR FIELD SERVICE, CORROSIVE MAINTENANCE AND OEM COATINGS.

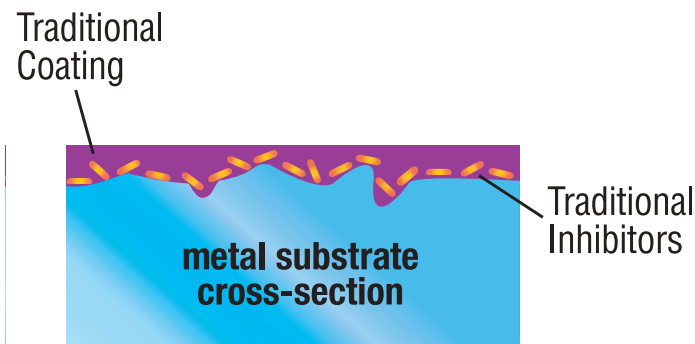
Cortec® can recreate your current colors with a customized formula, or simply match it from our extensive list of standard colors. Most Cortec® coatings have outstanding UV resistance capabilities. Cortec® products also have excellent gloss retention, which is important when aesthetics are a consideration.

With environmentally safe VpCI® technology, your equipment and products will be effectively protected against humidity, saltwater oxidizing atmospheres and corrosive industrial, marine and tropical environments.

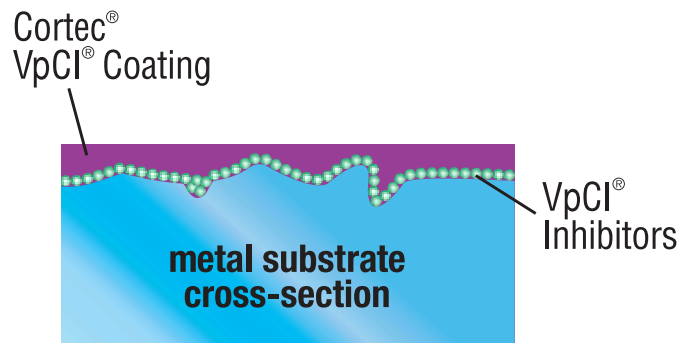


*Cortec's permanent coatings provide long-term VpCI® and barrier corrosion protection.*

## TRADITIONAL COATINGS VS. CORTEC® VpCI® COATINGS



Traditional coatings rely on sacrificial metals (zinc, chromates, aluminum) for inhibition. Due to the large particle size of these inhibitors, gaps exist which allow corrosion to start and eventually expand, causing coating failure.



Cortec® VpCI® coatings use the patented VpCI® technology to protect the metal substrate with a tight bonding molecular structure. This system eliminates the gaps which occur with traditional inhibitors and prevent corrosion from starting.

## PERMANENT PRIMERS

Typically applied as a base coat prior to topcoat. Enhances the long-term performance of the total corrosion control coating system.

### Water based

#### VpCI®-373

##### Fast Drying Chromate Primer Replacement

- Conforms to MIL-P-15328D
- Excellent intercoat adhesion

#### VpCI®-374

##### Long Lasting Performance Primer

- High solids
- Works well with waterborne topcoats
- Resists sagging
- Effective in indoor and outdoor environments

#### VpCI®-397

##### High Temperature Primer

- Extremely hard (9H pencil hardness)
- High temperature capabilities (1100°F (593°C))
- MER resistant

### CorrVerter™

#### VpCI® Rust Converter and Primer

- Excellent for rusty or poorly prepared steel surfaces
- Penetrates and eliminates rust
- Stops further rusting
- Can be used as a primer

### Epoxy

#### VpCI®-393

##### Tight-Sealing, Penetrating Film Primer

- Excellent for use over pre-rusted steel
- Also seals concrete or wood
- 2K system

#### VpCI®-395

##### Fast Drying Water Based Epoxy for Severe Conditions

- Excellent adhesion on difficult-to-adhere-to substrates
- Outperforms comparable epoxies by 20%
- High solids
- VOC compliant
- 2K system

### Urethane

#### VpCI®-396

##### Our Most Durable Long Lasting Coating Available

- Moisture-cure
- Single component package
- Can be applied at low temperatures
- Excellent chemical resistance
- Extremely long-lasting



## PERMANENT TOPCOATS

Designed for long-term durability, Cortec® coatings are the second component of the total corrosion control coating system.

### Water based

#### VpCI®-383

##### Immersion Coating

- Permanent acrylic coating
- Strong adhesion at thin mil thickness
- Easily topcoated
- Custom matched colors
- Weldable

#### VpCI®-385

##### Non-Skid Coating

- Good adhesion
- Formulated for floors, ramps, stairs

#### VpCI®-386

##### Our Original Topcoat for Multiple Uses

- Permanent acrylic coating
- Available in standard and custom colors
- Can be overcoated
- Gloss finish

#### VpCI®-387

##### A High Build Topcoat for Moderate Conditions

- High build acrylic coating
- Effective with or without a primer
- UV resistance
- Semigloss appearance

#### VpCI®-386FR

##### Fire Retardant Topcoat

- Passes ASTM-D-3806-79 Fire Retardant Paint Test
- With VpCI®-374 gives excellent salt spray protection
- UV resistant

### CorrShield® Gold

#### True Gold Water-Based Coating

- Permanent acrylic coating
- Attractive gold appearance
- Gloss finish

## Epoxy

### VpCI®-365

#### Replacement for Coal Tar Epoxies

- High flash point
- Ideal for outdoor or wet environments
- Medium to severe environment applications
- 2K system

## TEMPORARY COATINGS

*Used over both painted and unpainted surfaces. Provides protection during assembly, storage and shipment. Cortec® coatings are easily removed.*

## Solvent based

### VpCI®-367

#### Dry Film Temporary Coating

- Excellent salt/humidity resistance
- Removable with EcoLine Cleaner/Degreaser
- Can be overcoated

### VpCI®-368

#### Our Best Temporary Coating

- Outdoor coating
- Firm, wax-like film
- UV resistance
- Conforms to MIL-C-16173E (Grade 1 & 2), QPL product
- NSN 8030-00-62-6950
- NATO 6850-66-132-5848
- NATO 6850-55-132-6099

### VpCI®-369

#### Self-Healing Barrier Coating

- Self-healing film
- Excellent lubricity
- Conforms to MIL-C-16173E (Grades 1, 2 & 4), QPL product
- NSN 8030-00-244-1297

## Water based

### VpCI®-372

#### Strippable, Peelable Coating

- Dry film
- Fast drying
- Can be disposed of as solid waste when removed
- Effective for masking operations

### VpCI®-388

#### Removable Tack Free Coating

- Excellent for long-term indoor corrosion protection
- Dries clear, firm
- Environmentally friendly disposal



### VpCI®-389

#### Waxy Film Coating for Severe Conditions

- Excellent for long-term outdoor applications
- Excellent salt spray resistance
- Stays slightly tacky

### VpCI®-390

#### Hard Film Temporary Coating

- Excellent salt spray resistance
- Dries hard, non-tacky
- Easily removed

### VpCI®-391

#### Non-Tacky Water Based Coating

- Excellent salt spray resistance
- Dries hard, non-tacky
- Easily removed
- Custom colors available

#### CorrShield® Strippable Coating

- Excellent salt spray resistance
- Dry film
- Provides mechanical and corrosion protection
- Custom colors available

#### CorrShield® VpCI® Transit Coating for Shipping and Storage

- Waxy film
- Zero VOC
- Easily removable
- Dilutable



		Product	Film Type	Dry Film Thickness mil (µm)	Dry Time	VOC g/l (lb/gal)	Solids %	Coverage ft <sup>2</sup> /gal (m <sup>2</sup> /l)	Application Method	
Permanent Coatings	Primers	Water-Based	VpCI®-373	Hard	0.5-1mil (12.5-25 µm)	20 min.	151 (0.17)	33	1050 (26.2)	Spray, dip, roll, brush
			VpCI®-374	Hard	2 mil (50 µm)	20 min.	150 (1.25)	39	306 (7.5)	Spray, dip, roll, brush
			VpCI®-397	Hard	1-2 mil (25-50 µm)	2 hrs.	250 (2.04)	33	529 (13.1)	Spray, dip
		VpCI®-CorrVerter™	Hard	2-5 mil (50-125 µm)	2 hrs.	70 (0.56)	56		Dip, roll, brush	
		Epoxy	VpCI®-393	Hard	0.5-1mil (12.5-25 µm)	8 hrs.	0	100	1590 (38.8)	Spray, dip, roll, brush
			VpCI®-395	Hard	2 mil (50 µm)	10 min.	150 (1.25)	60	400 (9.7)	Spray
	Urethane	VpCI®-396	Hard	2-4mil (50-110 µm)	2 hrs.	330 (2.75)	70	561 (13.53)	Spray, dip, roll, brush	
	Topcoats	Water-Based	VpCI®-383	Hard	0.5-1mil (12.5-25 µm)	30 min.	295 (2.46)	36	722 (17.42)	Spray, dip, roll, brush
			VpCI®-385	Hard	5mil (125 µm)	1 hr.	40 (0.40)	35	112 (13.9)	Roll, brush
			VpCI®-386	Hard	1.5-3mil (37.5-75 µm)	1 hr.	150 (1.25)	30	240 (5.8)	Spray, dip, roll, brush
			VpCI®-386 Aluminum	Hard	1.5-2mil (37.5-50 µm)	30 min.	152 (1.27)	34-37	280 (6.9)	Spray, dip, roll, brush
			VpCI®-386FR	Hard	4-8mil (100-200 µm)	30-90 min.	152 (1.27)	46-49	190.5 (4.675)	Spray, roll, brush
			VpCI®-387	Hard	6-8mil (125-175 µm)	1 hr.	150 (1.25)	40	92 (2.2)	Spray, dip, roll, brush
			VpCI®-CorrShield® Gold	Hard	1.5-2.5mil (37.5-67.5 µm)	30 min.	152 (1.27)	37-40	320 (7.9)	Spray, dip, roll, brush
Epoxy		VpCI®-365	Hard	3-5mil (75-125 µm)	17 hrs.	225 (1.78)	70	281 (7.0)	Spray, dip, roll, brush	
Temporary Coatings	Solvent-based	VpCI®-367	Hard	2-2.5mil (50-67.5 µm)	8 hrs.	300 (2.5)	66-72	530 (13.1)	Spray, dip, roll, brush	
		VpCI®-368	Waxy	2-3mil (50-75 µm)	30 min.	350 (2.42)	55	300 (7.4)	Spray, dip, roll, brush	
		VpCI®-369	Oily	1-2mil (25-50 µm)	n/a	30 (0.25)	97	800 (19.6)	Spray, dip, roll, brush	
	Water-Based	VpCI®-372	Hard	2-6mil (50-150 µm)	1 hr.	50 (0.42)	57	225 (5.4)	Spray, dip, roll, brush	
		VpCI®-388	Hard	1-2mil (25-50 µm)	1 hr.	135 (1.13)	39	625 (15.1)	Spray, dip, roll, brush	
		VpCI®-389	Waxy	1-2mil (25-50 µm)	1 hr.	170 (1.42)	40	650 (16.1)	Spray, dip, roll, brush	
		VpCI®-390	Hard	2-2.5mil (50-62.5 µm)	8-12 hrs.	226 (2.7)	30-34	257 (6.29)	Spray, dip, roll, brush	
		VpCI®-391	Hard	1-2.5mil (25-62.5 µm)	1-2 hrs.	120 (1.0)	45-50	609 (15.0)	Spray, dip, roll, brush	
		CorrShield® Strippable	Hard	2-2.5mil (50-62.5 µm)	30-45 min.	63 (0.75)	66-72	365 (8.95)	Spray, dip, roll, brush	
		CorrShield® Transit	Waxy	0.5-1mil (50-62.5 µm)	30 min.	0	66-72	642 (15.7)	Spray, dip, roll, brush	

1. 1 mil = 25 microns (µm).
2. Dividing DFT (dry film thickness) by % Solids will yield recommended WFT (Wet Film Thickness) for application.
3. Water-based products should not be allowed to freeze during transport or storage.
4. Coatings should only be applied when surface temperature is a minimum of 5°F (2°C) above the dew point.
5. Dry times are based on ambient temperature of 70°F (20°C) and 50% relative humidity.

### Packaging

Most Cortec® liquid coatings are available in 5 gal (19 liter) pails, 55 gal (208 liter) drums, totes and bulk. Cortec® powder coatings are available in 44 lbs (20 kg) boxes.



Product	Description	Removal/ Cleanup	Topcoat- ability	Length of Protection
VpCI®-373	Soft, thin, flexible primer for adhesion to aluminum, stainless steel, galvanized and difficult-to-adhere-to surfaces. Must be top coated. Good replacement for chromate treatments.	VpCI®-433	Y	Long term
VpCI®-374	Extremely long-lasting primer that can be used with or without topcoat.	VpCI®-433	Y	Long term
VpCI®-397	Extremely hard (9H), high temperature aluminum water based silicone coating with a maximum operating temperature of 1100°F (593°C). Does not require a topcoat.	MEK	Y	Long term
VpCI®-CorrVerter™	Non-toxic, water-based primer recommended for application to rusty or poorly prepared steel surfaces.	VpCI®-433	Y	Long term
VpCI®-393	A pre-prime that penetrates and binds loose rust and metal into one film. Flexible, and can be top coated with any of our top coats or epoxies. Contains no VOCs! Excellent salt spray resistance.	MEK	Y	Long term
VpCI®-395	A water-based epoxy primer designed for difficult-to-adhere-to surfaces.	VpCI®-433	Y	Long term
VpCI®-396	A single package moisture cure urethane designed for long-term performance in severe environments.	MEK	Y	25 yrs.
VpCI®-383	An ideal coating for dip applications. For OEM specs. Clear or colors. Semi-gloss appearance. Can be applied at low thickness.	VpCI®-433	Y	3 yrs.
VpCI®-385	A non-skid coating. A primer (VpCI®-374) should be used if applying over metal.	VpCI®-433	Y	6 yrs.
VpCI®-386	Our original top coat for multimetal protection. Clear and colors. High gloss (70).	VpCI®-433	Y	5 yrs.
VpCI®-386 Aluminum	Excellent resistance to salt spray.	VpCI®-433	Y	5 yrs.
VpCI®-386FR	Fire Retardant version of VpCI®-386, Passes ASTM-D-3806-79.	VpCI®-433	Y	5 yrs.
VpCI®-387	A high-build, self-priming coating (higher than VpCI®-386) for outdoor protection.	VpCI®-433	Y	5 yrs.
VpCI®-CorrShield® Gold	A brilliant true gold colored water-based coating.	VpCI®-433	Y	5 yrs.
VpCI®-365	Available in three colors: black, aluminum, tan. Excellent resistance to salt spray.	VpCI®-433	Y	10 yrs.
VpCI®-367	Excellent salt spray protection, forms a hard film for medium to long term outdoor storage.	EcoLine™ Cleaner/ Degreaser, Solvents	Y	5 yrs.
VpCI®-368	Our best temporary coating (oil-based). Dries to a non-tacky film. Conforms to MIL-C-16173E (Grade 1). Can be removed.	VpCI®-411	N	5 yrs.
VpCI®-369	Removable oil-based, outdoor coating that provides a lubricating film. Remains wet to touch.	VpCI®-410 Series	N	5 yrs.
VpCI®-372	Our strippable coating, dries semi-transparent. Protects from damaging nicks and scratches.	VpCI®-433	N	3 yrs.
VpCI®-388	A removable tack free, firm coating. Matte finish. Dilutable. Ideal for dip or spray. Long-term indoor storage, short- to medium-term outdoor storage (sheltered).	VpCI®-411	N	3 yrs.
VpCI®-389	Our most protective water-based temporary coating. Excellent salt resistance, dilutable. Forms a lightly tacky film, dries clear, removable. Medium to long-term outdoor storage.	VpCI®-411, 414	N	3 yrs.
VpCI®-390	Excellent salt spray protection, with a hard coating for medium to long term outdoor storage.	VpCI®-411, 414	N	3 yrs.
VpCI®-391	Excellent salt spray resistance. Easily removable. Medium to long term outdoor storage, available in custom colors.	VpCI®-411, 414	N	3 yrs.
CorrShield® Strippable	Strippable coating and available in clear and colors.	VpCI®-433	N	2 yrs.
CorrShield® Transit	Excellent for protecting equipment, parts and tools during shipping and storage.	VpCI®-410 Series	N	2 yrs.



Visit our web site for more information on Cortec® Vapor phase Corrosion Inhibitors™.  
**CortecVCI.com**

### Total Corrosion Control™

Cortec® Corporation is dedicated to controlling corrosion at all stages of a product life cycle. Cortec® Corporation has developed a diverse range of corrosion protection products including cleaners, metalworking fluids, water- and oil-based coatings and corrosion inhibitors, rust removers, paint strippers, emitters, powders, packaging foams, paper, films, surface treatments and admixtures for concrete as well as additives for water, oil & polymers. Contact Cortec® for additional brochures and information.

### LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec® Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

Cortec Corporation® warrants Cortec® products will be free from defects when shipped to customer. Cortec Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec Corporation® of the claimed defect within six months after shipment of product to customer. All freight charges for replacement product shall be paid by customer.

Cortec Corporation® shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.

**BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.** No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec Corporation®.

**THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

Distributed by:



4119 White Bear Parkway, St. Paul, MN 55110 USA  
Phone (651) 429-1100, Fax (651) 429-1122  
Toll Free (800) 4-CORTEC • E-mail: info@cortecvci.com  
www.CortecVCI.com

Revised 12/03 Supercedes 5/03. Cortec®, VpCI®, CorrVerter™ and CorrShield® are trademarks of Cortec Corporation.  
© Cortec Corporation 2003. All rights reserved.



Certificate No. 70781

Certificate No. 81867