

"Your Corrosion Inhibitor Partner"



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SMART PACKAGING
POWERED BY NANO-VpCI®







**VpCI FOR SMART PACKAGING** DEYAP

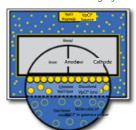
## **VpCI® SOLUTION**

Corrosion is a constant, indiscriminate, and costly enemy of metal, especially when packaged for storage and transportation. Traditional anti-corrosion methods are messy, costly, and can be hazardous to personnel and the environment. Too often they are ineffective.

Cortec's Vapor phase Corrosion Inhibitor (VpCI®) technology represents a breakthrough solution in corrosion prevention. Our VpCI® products protect metals with a chemically adsorbed molecular layer that provides multimetal corrosion protection. The coverage is complete - all surfaces, crevices, cavities, and other inaccessible void areas receive total protection. The VpCI® barrier is self-replenishing, even for packaging that's repeatedly opened, and typically protects for up to 24 months.

The industry proven result is exceptional product protection without the labor-intensive clean-up required with conventional oil coatings or other inhibiting products – even for previously corroded, painted, or coated surfaces. Cortec® VpCIs are environmentally safe, not based on nitrites, and the safety net your products and systems deserve.

Ionic action of VpCI® creates a molecular,



## **VpCI® Benefits**

#### **Cost Effective**

- Saves costly time and labor
- no surface preparation required for application
- no cleaning/degreasing requiredfor product use
- Reduces raw material requirements
- need for oil is eliminated
- Eliminates disposal costs
- products are fully recyclable

#### **Industry Proven Track Record**

Many years of application and testing ensure reliable

#### **Multimetal Protection**

 Same product provides protection for ferrous and non-ferrous metals.

#### **Simple Application**

Recessed and non-contact areas are protected.

#### **Safe for Personnel and Environment**

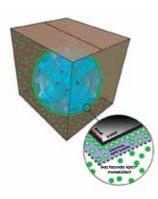
 Non-toxic and recyclable, VpCIs alleviate health and environmental concerns.

#### **VpCIs Fight Corrosion at the Molecular Level**

Cortec® Vapor phase Corrosion Inhibitors (VpCI®) provide multimetal protection with corrosion inhibiting vapors that condense onto the surface of your products and form a thin, uniform, economical, and extremely effective corrosion inhibiting layer.

This barrier is self-replenishing, Cortec® VpCls provide continuous protection, even if the package is repeatedly opened and closed.

Application is easy, little or no surface preparation is required. Machinery, products, and components are ready for immediate use, no cleaning or degreasing is required.



## **VpCI® Papers**

#### Total multimetal protection in a simple, economical applicatio

need to inventory a variety of papers for each of the metals you need to protect and prevent package contamination by utilizing only the highest quality neutral/natural kraft paper. Cortec® VpCI®papers vpCI®-145 Anti-Static Paper - Designed specifically for the and your products can be used immediately – no surface preparation or cleaning is required.

fully recyclable, repulpable, and non-toxic. They provide an excellent alternative to oil coatings or other VCI/VPI papers that often contain inferior chemicals.

These papers provide exceptional protection for dry or oiled metals during storage, transit, and overseas shipment. Cortec® also offers a selection of coatings for flexible packaging substrates.









Cortec® multimetal VpCI® papers eliminate the VpCI®-144 Barrier Coated Paper -Designed for barrier protection from moisture and other contaminants. Replaces wax and polycoated papers. VpCI®-144 is fully recyclable and is the first product in its class to be repulpable

are simple to use: There are no chemical concentra- electronics industry. This product will eliminate static buildtions to calculate or application systems to maintain up; in addition provides contact, barrier, and vapor phase corrosion inhibition.

VpCI®-146 Corrosion Inhibiting Paper, Patented - High quality VpCI® coated neutral natural kraft that eliminates All Cortec® VpCI® papers are environmentally safe, packaging contamination found with competing VCI papers. Also available in VpCI®-146 Crepe.

> provides resistance to greases, oils, and solvents. It contains a biobased coating and is fully recyclable/ repulpable.

> VpCI®-149 Corrosion Inhibiting Paper - A corrosion inhibiting paper for the protection of a wide variety of metals. Formulated specifically to provide superior protection for sensitive metals such as copper, aluminum, and cast iron.

Cortec® VpCI® Anti-Skid Linerboard is designed to prevent corrosion as well as slippage of cases, cartons and bags up to a twenty degree slide angle.

Cor-Pak ® Linerboard - The premium corrosion inhibiting linerboard in the industry. Provides multi-metal protection. Fully recyclable/repulpable.

Cor-Pak® Polycoated Paper- Made from the highest quality, neutral natural kraft paper. This product will provide excellent corrosion inhibition to both ferrous and nonferrous metals, at the same time, provides grease and moisture resistance.

Cor-Pak® Reinforced Paper- Made from the highest quality, reinforced neutral natural kraft paper. This product offers excellent tear resistance, as well as providing corrosion inhibition to ferrous and nonferrous metals.

Corrosorber® Paper - This paper is specifically designed for protection of precious metals such as silver, gold, brass, tin

CorrTainer® - VpCI® and moisture resistant container that eliminates the need for secondary packaging and offers cost effective, environmentally friendly (recyclable & repulpable) corrosion protection.

EcoShield® Linerboard - Coated with a moisture barrier coating. One of its key features is that it is fully repulpable while displaying barrier properties similar or better than those of wax or polyethylene coated paper or linerboard.

Application - Cortec® VpCI® Papers provide powerful corrosion protection in a variety of applications, including single item packaging, bulk shipments, OEM and automotive parts packaging for storage and shipping, and sheet liners for prodDEYAP 03 VpCI FOR SMART PACKAGING 04

## **VpCI® FILMS**

#### Cost Effective Multi-Metal VpCI® Protection for Products of All Sizes

Cortec VpCI® Films are powerful, cost effective, and simple to use. Cortec VpCI® Films provide Total Corrosion Control for multiple metals and are available in a wide variety of forms and sizes, including:

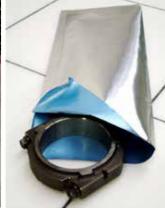
- Heat Sealable & Zipper Closure Bags
- Shrink
- Stretch
- UV Stabilized
- Flame Retardant
- Woven, Non-Woven
- Multi-Layer & Laminates
- Custom shapes, sizes and forms (automatic open, gussets, elastic, others)

Simply wrap, shroud, or pack your products or equipment; protection is continuous for WIP, storage, transit, lay-up, or mothballing applications. A continuous self-replenishing vapor emits from the film to protect all exposed metal surfaces regardless of temperature or humidity swings.

Cortec's VpCI® films are made exclusively from high technology resins using proprietary extrusion techniques to ensure 100% quality of the physical, mechanical, and corrosion inhibiting properties of all films produced. Our products meet the most rigorous international quality standards for corrosion inhibiting films.

Using Cortec's VpCI® films will ensure your valued assets are clean, dry, corrosion free, and ready for immediate use.





**Uygulama** - Cortec® VpCl® filmler, ihracat sevkiyatı için büyük ekipmanların korunması, çelik bobinlerin streç sarılması, son derece hassas elektrikli bileşenlerin paketlenmesinin yanı sıra yeni araçların ve ekipmanların shrink sarılması, birden fazla ürünün sevkiyatı için konteynerlerin astarlanması ve küçük parçaların fermuarlı torbalarda paketlenmesi icin olağanüstüdür.

**VpCI®-125 Anti-Static Film, Patented -** Unique multifunctional films: VpCI® and ESD protection. Transparent, multimetal protection, heat sealable. Protects against triboelectric charge generation and corrosion. Recyclable. Meets the static decay and surface resistivity requirements of MIL-PRF-81705D.

**VpCI®-126 Blue Multimetal Heat Sealable Film, Patented** High technology Vapor phase Corrosion Inhibiting films and bags. Available in shink, FR, UV, ES, and QPL versions.

CorrCaps VpCI® Protective Covers- Elastic sewn on to VpCI®-126 or EcoWeave to create a "cap" that protects exposed brake assemblies on vehicles. Excellent protection and easy application. Can be sewn from 1" (2.5 cm) diameter to over 24" (60 cm) diameter

CorrLam® VpCl® Barrier Laminate - Heavy Duty Barrier-Foil/VpCl® polyethylene laminated structure. Exceptional protection of moister-sensitive and oxygen sensitive metal parts. Ideal for vacuum packaging. MIL PRF-131-J(Comm. Equiv.)

**CorrNetting** - Film extruded from the highest quality PE resin and Cortec® multimetal VpCls. Offers very effective packaging, which combines physical protection, cushioning and multimetal corrosion protection for sensitive mechanical parts and other sensitive materials.

**Cor-Pak® VpCI® Corrugated PE Sheeting** - 100% recyclable packaging material. Easily fabricated into boxes, containers and custom totes.

**Cor-Pak® EX VpCI® Film** - High density polyethylene film extruded with VpCI®. Protects ferrous and non-ferrous metal. Excellent barrier. 1.25 mil (32 micron).

Cor-Pak® VpCl® Masking Film - It provides scratch and mar resistance in combination with corrosion inhibition. Cor-Pak VpCl® Masking Film is constructed from high quality PET film with a silicone release providing easy dispensing and application. It utilizes controlled adhesion properties to stick firmly to smooth surfaces, and leaves no residue upon removal.

**Cor-Pak® VpCI® Skin Film, Patented** - Transparent skin film with VpCI® for multimetal protection. Offers high clarity; industrial, and retail packaging.

**Cor-Pak® VpCI® Stretch Film, Patented** - Holds protected parts securely in place; transparent. Does not leave residue on parts. Multimetal protection. Available in machine and hand wrap grades

**Corr Seal® VpCl® Film** - Film that protects metal through both vapor action and contact corrosion inhibition. The VpCls vaporize and deposit on all metal surfaces, reaching even recesses or indentations on the product. The film sticks firmly and only to itself, leaving no residue on the packed items.

**CorShield® Woven Polyethylene Film** - Woven polyethylene film with a heavyduty non-woven inner layer. For packaging of sensitive equipment that requires strong protection on the inner layer without abrasion.

**EcoShield® Reinforced Film** - High performance protective film. A combination of woven strength with a non-woven interior which wicks away condensation and is non-abrasive.

**EcoWeave® VpCI® Woven Polyethylene** - VpCI® film designed for use in applications where additional strength and tear resistance are required.

MilCorr® VpCI® Shrink Film, Patented - Composite film, containing the ultimate additives package: Cortec® multi-metal Vapor phase Corrosion Inhibitors (VpCI®), with UV stabilizers. Film thickness 10 mils (250 microns)





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## **VpCI® FOAMS & FABRICS**

#### Easily Applied, Adaptable, and Powerful Multi-Metal VpCI® Protection

Cortec® foams and fabrics combine multi-metal VpCI® protection and desiccant action in one simple effective step.

Use VpCI® foams and fabrics as stand alone devices in enclosed cabinets and cavities or to complement VpCI® films surrounding large void air spaces.

#### Simple, powerful Multi-Metal Protection:

- Foams and Fabrics contain up to 10 times more VpCl® than papers and films
- Fast emissions and saturation allows quick shipments of pre served equipment
- Available with static dissipative properties and in custom sizes and shapes
- Lightweight allowing lower cost handling, transport, and storage
- Easy dosage using pre-measured units and sizes

**VpCl®-131 Impregnated Foam Pads** – VpCl® impregnated foam protects multimetals in small spaces and areas in need of focused corrosion protection.

**VpCI®-132 Foam Pads** – VpCI® impregnated 10"x10"x1/4" (25 cm. x 25 cm. x 0.625 cm.) foam pads offer ready-to-use corrosion/desiccant protection. Provide easily adaptable dosages and contain up to 10 times the VpCI® of coated papers and films.

**VpCI ®-137 Foam Rolls** – VpCI® impregnated foam available on a roll for greater economy. Excellent for applications requiring varying amounts of protection.

**Bio-Pad™, Patent Pending** – A unique flexible corrosion inhibiting device constructed from 100% biobased non-woven material.

**Cor-Pak® Fabric** – Polyester non-woven fabric impregnated with VpCl®. Provides mechanical protection and corrosion inhibition while emitting VpCl's as quickly as VpCl® 130-Series foam.

**Application** – Cortec® VpCl® foams are designed to protect products with large surface areas, to emit VpCls in shipping containers, and to protect products and equipment with large void areas. VpCl® foams also afford long-term protection for large export packages, crates and seagoing containers.









## **VpCI® CUSHIONING**

#### **VpCI®** — the best anti-corrosion strategy for sensitive equipment.

Cortec® cushioning products offer a powerful combination of damage and corrosion protection, and can be customized to fit nearly any packaging requirement. VpCl® vapors in cushioning products will not interfere with subsequent processing such as painting, welding, cleaning, etc., and have no adverse effects on plastics, optics, and elastomer.



Our cushioning line is multi metal protecting, non-toxic, and provides exceptional shock protection for highly sensitive components such as electronic products.

**Cor-Pak® VpCl® Bubbles Patented** - Provides both corrosion and cushioning protection to sensitive and/or delicate multimetal components. Designed for use in cushioning, dunnage, void fill and interleaving.

**Application -** Cortec® VpCI® cushioning products are used to package and protect precision machined parts and highly sensitive electronic components. They are also excellent for dunnage, void fill, protection from breakage, and surface damage such as scratches, etc.

## **VpCI® INSERTS**

#### **VpCI®** protection with simple, dosage-specific application.

Cortec® inserts provide complete protection for all metal surfaces. VpCI® vapors adsorb everywhere, including recessed areas. Our VpCI® technology is perfectly suited to inserts because the VpCls replenish themselves regardless of how many times the package is opened. Cortec® VpCI® inserts provide safe, effective and easy-to-implement multimetal protection for a wide variety of packaged products. All pouches, tablets and circles can be inserted automatically or manually.



**Apllication -** Cortec \$ VpCl \$ inserts can be used as a primary or complementary corrosion control system in virtually any packaging system, ranging from corrugated boxes to zipper closure bags.

Desicorr® / Desicorr® VpCl® Pouches - A specially designed two sided pouch which contains a unique combination of desiccant and VpCl® that protects products from moisture damage. These inserts are ideal for small, enclosed packages. 0.75 cubic feet (,213 cubic meter).

**EcoPouch -** Contains VpCI®-609 powder for corrosion protection of ferrous metals and aluminum. The pouches are constructed from breathable Tyvek®, which allows the VpCI® molecules to be emitted through the membrane, and form a molecular layer on metal surfaces providing corrosion protection. Each pouch will protect up to 35.3 cubic feet (1 cubic meter)

**VpCI®-308 Pouch-** Demir içeren metallerin, alüminyum, bakır ve bronzun korozyona karşı korunması için toz içerir. Torbalar, VpCI® moleküllerinin membrandan yayılmasını sağlayan ve metal yüzeylerde korozyon koruması sağlayan moleküler bir tabaka oluşturan nefes alabilen Tyvek®'ten yapılmıştır. Her bir poşet 35,3 fit küpe (1 metreküp) kadar fit küpü (1 metreküp) koruyacaktır.

**VpCI®-309 Pouch** - Contains VpCI® powder for corrosion protection of ferrous metals in recessed areas, interior cavities and voids. The pouches are constructed from breathable Tyvek®. Each pouch will protect up to 35.3 cubic feet (1 cubic meter).

**VpCI®-133 Foam Squares-** VpCI® impregnated foam squares with adhesive backing for easy, vertical installation. These inserts are ideal for small, enclosed packages. Each foamsquare protects up to 0.5 cubic feet (0.014 cubic meters).

**VpCI®-136 Foam Squares**- VpCI® impregnated foam squares without adhesive backing for easy, vertical installation. These inserts are ideal for small, enclosed packages. Each foam square protects up to 0.25 cubic feet (0.007 cubic meters).

**Cor-Pak® 1-MUL Breathable Tyvek Pouch-** It contains VpCI® powder for ultra-simple, toss-in application. Protects up to one cubic foot (0.028 cubic meters). Ideal for small packages.

**Cor-Pak® Tablets-** Easy-to-use tablets that offers superb protection for multimetal products, components or assemblies. Each tablet protects up to 0.25 cubic feet (0.007 cubic meters).

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## **COMPOSTABLE PRODUCTS**

Cortec's vast line of state-of-the-art compostable products ensures that the packaging products that are used everyday have the lowest possible environmental impact. Cortec® has the widest range of biodegradable and compostable flexible packaging solutions in the world!

From collection and retail bags, to high tech barrier and tensioning films, Cortec's Eco Film®, Eco Works® and Eco Wrap® offer many benefits over traditional films:

- Certified under ASTM D 6400 Specification and EN13432
- Reduce or eliminate disposal costs
- Use less material due to strength improvements
- Shelf stable
- Adjustable physical properties
- Excellent strength, even with heat, moisture and chemical exposure
- Begins to biodegrade only when exposed to microorganisms
- Once composted, film biodegrades within weeks













We can customize formulations to meet even the most stringent performance and physical property specifications. Contact **DEYAP** for more detailed application guidelines..

BioCushion® - A certified biodegradable air cushion for protective packaging applications and provides an environmentally friendly alternative to traditional void fill materials.

**Eco Film® High Performance Polyester Formula**tion, Patented- Designed as replacement for polyethylene. Available in rolls, finished bags, convertible films.

EcoOcean®, Biobased Film and Bags - It is constructed from the latest biobased polymer technology on the market. Designed with the environment in mind, EcoOcean® contains 77% biobased content and is fully marine biodegradable. EcoOcean® is compostable in marine environments, anaerobic digestion, natural soil and water environments, backyard composting systems, and municipal composting facilities (in areas where these facilities are available).

Eco Works® Films, Patented - High performance blend of polyester and biobased resins. Slightly more rigid than EcoFilm®. It is available in various

Eco Works® Resin - A proprietary blend of aliphatic and aromatic polyesters designed for biodegradable film extrusion applications. It provides an environmentally conscious alternative to polyethylene and polypropylene sheet materials

Eco Wrap®, Patented - Formulation of certified polyester (ASTM D 6400) and a biodegradable cling coating. Superior strength allows down gauging and fewer required wraps for many palletizing/protective wrap applications.

**Application** - Cortec® compostable films are ideal for applications including: agricultural films, consumable/ single-use items, carrier bags, masking/protective films, high capacity bags, retail pouches, collection bags and stretch film replacement. Excellent for agricultural and military applications.







## **VpCI® ECO PRODUCTS**

#### New Biodegradable and Compostable Films Lead Industry

Cortec's technological breakthrough of fully biodegradable films was designed to aid business and government in complying with increasingly stringent environmental guidelines. Eco-Corr® films provide unsurpassed corrosion protection while in use, but degrade 100% into carbon dioxide and water

#### **Eco-Corr®**

Eco-Corr® combines all the environmental and performance advantages of Eco Film® with Cortec's patented VpCI® technology. Eco-Corr® protects all ferrous and nonferrous metals from corrosion and the film's unique physical characteristics allow Eco-Corr® to be used in specialized packaging applications such as interleaving and in liner film applications. Cortec's patented Eco-Corr® is the only fully biodegradable and compostable corrosion-inhibiting film in the world.

#### **Eco-Corr® ESD**

Eco-Corr® ESD is a 100% biodegradable film that is specially designed for the electronics industry. It conforms to the strict requirements of MIL-PRF-81705D with respect to static dissipative requirements. In addition, Eco-Corr® ESD provides multimetal corrosion inhibition to applications involving contact, barrier and Vapor phase Corrosion Inhibition.

Eco-Corr® Biodegradable VpCI® Film - Aliphatic-aromatic co-polyester, VpCI® film. Degrades 100% into carbon dioxide and water once composted. Provides multi-metal corrosion inhibition and eliminates waste. BPI Certified Compostable. Available in formulations up to 40% biobased con-

Eco-Corr® Biodegradable VpCI® ESD Film - Fully compostable polyester film with multimetal corrosion and ESD protection. Biodegrades into CO2 and H2O once composted. Available in formulations up to 40% biobased content.

Application - Eco-Corr® and Eco-Corr® ESD are ideal for export and storage of metal parts and equipment, including sensitive electronic components. Once sent to a commercial compost facility, both films will biodegrade completely within weeks.















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## **BUYERS GUIDE**

PRODUCT	DESCRIPTION	PROTECTION	PACKAGING
VpCI®-144	Multimetal VpCI® and barrier coated paper. Replaces wax and polyethylene coated papers. Non-toxic, nitrite free, fully recyclable/repulpable	Varies	Standard and custom sizes
VpCI®-145	Multimetal VpCI® coated high quality natural kraft paper that also provides anti-static properties. Excellent for packaging sensitive electronics.	Varies	Custom sizes
VpCI®-146	Multimetal VpCI® coated high quality natural kraft paper. Non-toxic, nitrite free, 100% recyclable/repulpable. Excellent for single item packaging.	Varies	Standard and custom sizes
VpCI®-146 Crepe	Multimetal VpCI® coated high quality natural kraft crepe paper. Non-toxic, nitrite free, 100% recyclable/ repulpable. Excellent for applications that require cushioning.	Varies	Custom sizes
VpCI®-148	In addition to its excellent corrosion inhibiting properties, VpCI®-148 also provides resistance to greases, oils, and solvents.	Varies	Custom sizes
VpCI®-149	A corrosion inhibiting paper for the protection of a wide variety of metals. Formulated specifically to provide superior protection for sensitive metals such as copper, aluminum, and cast iron.	Varies	Custom sizes
Corrosorber® VpCI® Paper	Multimetal VpCI® coated high quality bleached white paper that also scavenges H2S. Excellent for the protection of precious metals such as silver and gold.	Varies	Standard and custom sizes
Corr Seal® VpCl® Film	Non-toxic, flexible, lightweight, cohesive film containing VpCI®.	Varies	Custom sizes
Cor-Pak® Linerboard	Multimetal VpCI® coated linerboard. Non-toxic, nitrite free. Excellent for use in boxes, or corrugated sheeting.	Varies	Custom sizes
CorrTainer®	VpCI® and moisture resistant container all in one box. The inside of the box is coated with Cortec's Vapor phase Corrosion Inhibitor and a barrier coating which integrates safe, effective, multi-metal corrosion protection.	Varies	Custom sizes
EcoShield® VpCI® Paper/Linerboard	Multimetal VpCI® and barrier coated linerboard. Excellent for moisture and oil resistance.	Varies	Custom sizes
VpCI® Reinforced Paper	Multimetal VpCI® coated reinforced paper. Excellent strength for steel and metal wrapping.	Varies	Standard and custom sizes
VpCI® Polycoated Paper	VpCI® Polycoated Paper is coated with a polyethylene coating, to provide a moisture barrier and/or moisture-vapor barrier. provides superior corrosion protection for both ferrous and non-ferrous metals.	Varies	Standard and custom sizes
Cor-Pak® VpCI® Masking Film	Corrosion inhibiting masking film that protects metal parts from all types of corrosion including rust, tarnish, stains, white rust, and oxidation. Provides scratch and mar resistance	Varies	Custom sizes

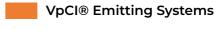
PRODUCT	DESCRIPTION	PROTECTION	PACKAGING
VpCI®VpCI®-125 Static Dissipative Film	Transparent, multimetal protection, heat sealable. Protects against triboelectric charge generation and corrosion. Recyclable. Conforms to the surface resistance and static decay requirements of MIL-PRF-81705D	Varies	Custom sizes
VpCI-126® Blue	Transparent plastic films with VpCI® for multimetal protection. It is heat sealable and available in Zip-Lock® bags, and shrink film varieties. VpCI®-126 MIL conforms to MIL PRF-22019D, MIL B-22020D, and QPL 4350-0B120(3) Recyclable.	Varies	Standard and custom sizes
VpCI - 126® CorrCaps	Elastic sewn on to VpCI®-126 or EcoWeave to create a "cap" that protects vulnerable exposed or extended points or parts. Excellent protection and easy application. Can be sewn from 1" diameter (2.5 cm.) to over 24" diameter (60 cm.).	Varies	Custom sizes
Cor-Pak® EX Film	1.25 mil high-density polyethylene VpCI® coextruded transparent film. Multimetal, non-toxic, nitrite free. Extremely lightweight and flexible. Excellent for interleaving. Transparent for easy part identification.	Varies	Standard and custom sizes
Cor-Pak® VpCl® Skin Filmi	VpCI® skin film. Multimetal, non-toxic, transparent film. Patented.	Varies	Custom sizes
CorrNetting	CorrNetting is extruded from the highest quality PE resin and Cortec® Multimetal VpCIs. Offers very effective packaging, which combines physical protection, cushioning and multimetal corrosion protection for sensitive mechanical parts and other sensitive materials.	Varies	Custom sizes
Cor-Pak® VpCI® Bubbles	Multifunctional corrosion and cushioning protection. Excellent for packaging precision parts. Patented.	Varies	Standard and custom sizes
Cor-Pak® Stretch Film	Multimetal, non-toxic, recyclable, transparent VpCI® stretch film. Excellent puncture and tear resistance. Machine and hand grades available. Patented.	Varies	Standard and custom sizes
Cor-Pak® VpCl® Corrugated PE Sheeting	100% recyclable packaging material. Easily fabricated into boxes, containers and custom totes.	Varies	Custom sizes
Cor Pak® VpCI® Pipe Strip	Low density, polyethylene strip containing VpCI® designed for protection of ferrous and non-ferrous tubular products.	Varies	Standart
MilCorr® Shrink Film	Composite film, containing the ultimate additives package; Cortec® multimetal VpCIs, UV inhibitors to provide a top-notch universal protection system.	Outdoor and indoor	Standard and custom sizes
EcoWeave® Film	Woven polyethylene film that has strong puncture and tear resistance for packaging large/heavy machinery. It provides multimetal protection and is non-toxic, recyclable.	Varies	Standard and custom sizes
EcoShield® Fabric	Woven polyethylene fabric with a non-woven inner layer. Protects equipment while offering VpCI® multimetal corrosion protection. Available with zippers and in custom sizes.	Varies	Standard and custom sizes
CorShield® VpCI® Woven Polyethylene Film	CorShield®, patented, is multiple-layered protective fabric with a non-woven, soft inside layer. Corshield® is made from low-density polyethylene tapes, a highdensity coating and is extrusion laminated.	Outdoor and indoor	Standard and custom sizes
CorrLam® VpCI® Barrier Laminate	Corrosion inhibiting, film and bags. Multi-layer structure, providing long-term preservation for up to fifteen years.	Varies	Custom sizes

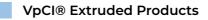
PRODUCT	DESCRIPTION	PROTECTION	PACKAGING
VpCI®-131	VpCI® impregnated foam protects multimetals in small spaces and areas in need of focused corrosion protection. 2" x 10" x 1/4" (5.08 cm. x 25 cm. x 0.64 cm.).	each/1,5 ft. <sup>3</sup> (0,042 cubic meters)	250/carton
VpCI®-132	VpCI® impregnated foam pad 10" (L) x 10" (W) x 1/4" (H).(25.4 cm. x 25.4 cm. x 0.635 cm.). Multimetal, non-toxic and nitrite free.	each/8.0 ft. <sup>3</sup> (0,25 cubic meters)	250/carton
VpCI®-133	VpCI® impregnated foam square with adhesive backing for vertical-mounting applications.  1" (L) x 1" (W) x 1/4" (H) (2.5 cm. x 2.5 cm. x 0.635 cm.).  Multimetal,non-toxic, nitrite free.	each/1/2 ft.³ (0,014 cubic meters)	1000/carton
VpCI®-136	VpCl® impregnated foam squares without adhesive backing.  1" (L) $\times$ 1" (W) $\times$ 1/4" (H) (2.5 cm. $\times$ 2.5 cm. $\times$ 0.635 cm.).  Multimetal, non-toxic, nitrite free.	each/1/4 ft. <sup>3</sup> (0,012 cubic meters)	1000/carton
VpCI®-137	VpCI® impregnated foam rolls 130' (L) x 54" (W) x 1/4" (H) (39.6 m. x 137.2 cm. x0.685 cm.). Multimetal, non-toxic and nitrite free.	1 ft.²/10 ft.³ (0,28 cubic meters)	1 roll/carton
VpCI®-150 Tape	Multifunctional VpCI® impregnated foam. Provides corrosion protection, cushioning and static-dissipative properties. Multimetal, non-toxic, nitrite free. 12' L x 3/4" W x 1/4" H (3.7 m. x 19 mm. x 6 mm.).	in./.4 ft³ (.005 cubic meters)	6 rolls/carton
VpCI®-170 Tape	Multifunctional VpCI® impregnated foam. Provides corrosion protection, cushioning and static-dissipative properties. Multimetal, non-toxic, nitrite free. 20' L x 2" W x 1/4" H (6.1 m. x 51 mm. x 6 mm.).	in./1.0 ft. <sup>3</sup> (.03 cubic meters)	1 roll/carton
VpCI®-308 Pouch	Contains a VpCI®-308 powder for corrosion protection of ferrous metals in recessed areas, interior cavities and voids. The pouches are constructed from breathable Tyvek.	35 ft³ (1 m³)	300/carton
VpCI®-309 Pouch	Contains a VpCI®-309 powder for corrosion protection of ferrous metals in recessed areas, interior cavities and voids. The pouches are constructed from breathable Tyvek.	35 ft³ (1 m³)	300/carton
Bio-Pad™	A unique flexible corrosion inhibiting device constructed from 100% biobased non-woven material. It provides an ecofriendly and sustainable packaging option for corrosion inhibition	up to 15 ft <sup>3</sup> per ft <sup>2</sup> of material (4.5 m <sup>3</sup> /m <sup>2</sup> ).	Custom sizes
Cor-Pak® Fabric	Polyester non-woven fabric impregnated with VpCI®. Provides mechanical protection and corrosion inhibition while emitting VpCI's as quickly as VpCI®-130 series foam.	1 ft.²/10 ft³ (0,28 cubic meters)	1 roll/carton
Cor-Pak® 1-MUL	Breathable Tyvek pouches containing VpCI®. Each pouch is 2.25" L x 2.25" W x 0.25" H (5.7 cm. x 5.7 cm. x 0.635 cm.). Manually or automatically inserted. VpCI® powder conforms to MIL I-22110C.	pouch/1.0 ft <sup>3</sup> (0.028 cubic meters)	300/carton
Cor-Pak® Tablets	Multimetal VpCI® tablet. Easy to use, dosage is easily adaptable. Manually or automatically inserted. Conforms to MIL I-22110C	tablet/1/4 ft³ (0.007 cubic meters)	1000/bottle
Desicorr®/Desicorr® VpCl Pouches	Store at room temperature. Close cartons between uses. The shelf life of unopened cartons of pouches is up to 24 months or until color change is observed.	0.75 ft <sup>3</sup> (.213 m <sup>3</sup> )	300/carton
EcoPouch	There are no chemical concentrations to calculate and no need for special equipment for application; just determine the number of pouches required per unit space.	35 ft <sup>3</sup> (1 m³)	50/carton

PRODUCT	DESCRIPTION	PROTECTION	PACKAGING
BioCushion®	A certified biodegradable air cushion for protective packaging applications and provides an environmentally friendly alternative to traditional void fill materials.	Non-VpCI®	Custom sizes
EcoFilm®	High performance polyester packaging film. Replaces LDPE, HDPE and others. Certified biodegradable/compostable under per ASTM D 6400. Available in standard and custom forms including sheeting, tubing, flat/gussetted bags and retail packages.	Non-VpCI®	Standard and custom size
Eco-Corr® Film	Certified 100% biodegradable and compostable film per ASTM D6400 utilizing Cortec's patented VpCI® technology. It provides better tensile strength, tear strength and ultimate elongation than low density polyethylene films. It is also heat and water stable and does not disintegrate or break apart while in use.	Up to 24 months	Custom sizes
Eco-Corr® ESD	A certified compostable polymer extruded film that offers ESD and corrosion inhibiting properties up to three times the strength of LDPE. Patented.	Up to 24 months	Custom sizes
EcoOcean®	Biobased film and bags for marine biodegradable and anaerobic digestion markets.	Non-VpCl®	Custom sizes
EcoWorks® Film	Unique blend of biobased resin and high performance copolyester. Meets proposed USDA requirements for biobased plastics. Certified compostable under ASTM D 6400 or EN13432. Replaces LDPE, HDPE and others. Available in all standard and custom forms available in polyethylene products, including retail packages.	Non-VpCI® (See Eço-Corr®)	Standard and custom size
Eco Works® Resin	A proprietary blend of aliphatic and aromatic polyesters designed for biodegradable film extrusion applications. It provides an environmentally conscious alternative to polyethylene and polypropylene sheet materials.	Non-VpCI®	Custom sizes
EcoWrap® Film	Combination of biodegradable/compostable polyester and cling coating.Certified compostable and biodegradable under ASTM D 6400. Replaces nondegradable stretch film. Stronger than polyethylene by 200-300%. Available in hand and machine grade.	Non-VpCI®	Hand and machine grade; custom sizes and thicknesses
Eco-Tie®	High strength biodegradable tie. Environmentally friendly alternative to twine and metallic/plastic ties	Non-VpCI®	Custom Spools

### **Cortec® Corporation Product Key:**

VpCI® Paper/Coatings Products







DEYAP Vpci for smart packaging 14



# **DENIZ YAPI**

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# **66 YOUR CORROSION INHIBITOR PARTNER ??**

# DEYAP ABOUT US

Deniz Yapi Sanayi ve Tic. A.S. in 1992 to carry out corrosion prevention and surface cleaning works, DEYAP is the Turkish distributor and licensor of Cortec Corporation and Mykal, the leading companies in the world.

Our company, which realized the supply (1992), production and project design (1995) of VpCI for the first time in Turkiye, provides the production of VpCI film and paper products specific to the demands of its customers in its 2500 m² production area located in Kocaeli Dilovasi and the supply of anti-corrosion chemicals, dehumidifiers, surface cleaning chemicals and auxiliary packaging materials. All of its production is carried out under ISO - 9001:2015 quality system.



www.deyap.com.tr