



## HIGH PERFORMANCE VpCI™ PACKAGING

# VpCI™-144, Patented Corrosion Inhibiting Paper



### PRODUCT DESCRIPTION

Cortec® VpCI-144 is the premium corrosion inhibiting paper in the industry. Our patented Vapor phase Corrosion Inhibiting technology has revolutionized the way metals are protected in an enclosed package. Cortec® VpCI-144 paper provides superior corrosion protection for both ferrous and non-ferrous metals, which eliminates the need to inventory a variety of papers for all the different types of metal you need to protect.

In addition, VpCI-144 paper is coated with the water-based barrier coating. Historically, polyethylene and wax coatings have been used to seal porous paper, corrugated boxes and sheets to provide a moisture barrier and/or moisture-vapor barrier to these substrates. The resulting paper product is an environmental problem and cannot be recycled through normal channels. Cortec® VpCI-144 paper provides an environmental alternative to polyethylene and wax paper.

Cortec® VpCI-144 is environmentally safe, non-toxic, biodegradable and fully recyclable/repulpable. That means VpCI-144 can be recycled into other types of paper products such as boxes, cardboard and other corrugated materials. It also means that Cortec® VpCI-144 can be "repulped" or made into or mixed with pulp to make new paper products.

Cortec® VpCI-144 paper is made from the highest quality recycled neutral natural kraft paper: our paper is made without the use of any chlorine or other bleaching chemical. This eliminates package contamination found with other competing VCI/VPI papers. Parts, protected with Cortec® VpCI-144 can be painted, welded, and soldered. The thin protective film doesn't influence physical properties of most sensitive electrical and electronic components, including conductivity and resistancy. In addition, the paper basestock for the VCI/VPI coatings is produced with closely packed cellulose fibers which form a relatively non-permeable sheet. This attribute produces a uniform coating, as well as prevents the coating from striking through the paper.

### TYPICAL APPLICATIONS

Cortec® VpCI-144 paper can be used to protect products for storage and shipment in a wide variety of ways: end closures for shipping tubes, insert strips for recessed areas in large packages; and as sheet liners or separators between products.

The typical applications are:

- Metal producing: coils, wire reels, plate, bar, etc.
- Metal forging and die casting: raw and machined forgings and castings.
- Metalworking: stamping, sheet metal work, springs, bearings, fasteners, tube, pipe, jewelry, silverware, etc.
- Finished products: engines, machinery, equipment, tools, hardware, appliances, instruments, motors, etc.
- Electrical and electronic components, controls, printed circuit boards, etc.

### FEATURES

- One product for all ferrous and non-ferrous metals.
- Biodegradable. Contains no nitrites, phosphates, silicones, chromates or other heavy metals.
- Fully recyclable, repulpable.



**CORTEC**  
CORPORATION

Environmentally Safe VpCI™/MCI® Technologies

- Effective against aggressive environments including humidity, SO<sub>2</sub>, H<sub>2</sub>S and galvanic corrosion from dissimilar metals.
- Conforms to military specifications MIL-P-3420E.
- Protective film does not need to be removed prior to further surface finishing or coating application.
- Protects dry or oiled metals during storage, transit and overseas shipment.
- Good moisture barrier and resistant to oils.
- Natural grade paper eliminates package contamination.
- Combines corrosion protection, barrier properties, and packaging into one step.

## METHOD OF APPLICATION

Products should be packaged as soon after cleaning as possible. Keep the VpCl paper as close to the surface of the product as practical, leaving no barrier between the VpCl paper and the metal surface to be protected.

Use approximately 1 square foot (0.09 m<sup>2</sup>) of VpCl paper for every 3 square feet (0.28 m<sup>2</sup>) of surface to be protected, and 1 square foot (0.09 m<sup>2</sup>) of VpCl paper for every 0.5 cubic foot (0.01 m<sup>3</sup>) of void space. For long-term storage of up to ten years, enclose the wrapped product in an airtight package.

Standard construction of VpCl-144: Neutral natural paper coated on one side with the blend of water-barrier coating and VpCl material and with the barrier coating on the reverse side.

## FOR INDUSTRIAL USE ONLY

## KEEP OUT OF REACH OF CHILDREN

## KEEP CONTAINER TIGHTLY SEALED

## NOT FOR INTERNAL CONSUMPTION

## CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

## METALS PROTECTED

- Carbon Steel
- Stainless Steel
- Galvanized Steel
- Cast Iron
- Aluminum Alloys
- Copper
- Brass (≤30% Zn)
- Solder

## TYPICAL PROPERTIES

Property	TAPPI Method	Unit	Cortec
Basis Weight	T-410	lbs/3000ft <sup>2</sup> (kg/m <sup>2</sup> )	32.5 (158.69)
Caliper (thickness)	T-411	Inches (mm)	0.0032 (0.08125)
Tear-MD	T-411	gms	47.5
Tear-CD	T-411	gms	58.5
Dry Tensile-CD	T-494	lbs/in (kg/mm)	17.68 (0.315)
Dry Tensile-MD	T-494	lbs/in (kg/mm)	47.14 (0.8418)
TEA-CD	T-494	ft-lbs/ft (J/m <sup>2</sup> )	3.6 (38.8)
TEA-MD	T-494	ft-lbs/ft (J/m <sup>2</sup> )	1.9 (20.5)
Stretch-CD	T-404	%	4.26
Stretch-MD	T-404	%	1.47
Ink Float	T-530	seconds	15
Smooth-nonprint	T-538	sheffield	240
Smooth-VCI	T-538	sheffield	231
Internal Bond	T-541	ft-lbs/in (J/cm)	0.165 (0.064)
Abrasion-nonprint	T-476	gm loss/100 rev	0.007
Abrasion-VCI	T-476	gm loss/100 rev	0.002
WVTR (73°F, 50%RH)	T-448	GmsH <sub>2</sub> O/24hours/100in <sup>2</sup>	0.634

CD = Cross Direction  
MD = Machine Direction

## PACKAGING AND STORAGE

Standard sizes: Converter rolls 48" x 11,000 feet (1.22 m x 3,353 m); roll stock 36" x 200 yards (0.91 m x 183 m), 48" x 200 yards (1.22 m x 183 m), and sheeting perfed on the roll 12" x 12" (0.31 m x 0.31 m). Custom sizes and constructions available upon request.

## LIMITED WARRANTY

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