

ATION  
USA  
FILM  
INHIBITOR-PATENT



## HIGH PERFORMANCE VpCI™ PACKAGING

# VpCI®-146 Corrosion Inhibiting Paper



VpCI-146 Paper

### PRODUCT DESCRIPTION

Cortec® VpCI-146 is the premium corrosion inhibiting paper in the industry. Our patented Vapor phase Corrosion Inhibiting (VpCI) technology has revolutionized the way metals are protected in an enclosed package. Cortec VpCI-146 paper provides superior corrosion protection for both ferrous and non-ferrous metals. Cortec VpCI-146 multimetal paper eliminates the need of a variety of papers for all the different types of metals and alloys you need to protect. Cortec VpCI-146 is fully recyclable/repulpable. That means VpCI-146 can be recycled into other types of paper products such as boxes, cardboard and other corrugated materials. It also means that VpCI-146 can be "repulped" or made into or mixed with pulp to make new paper products. Additionally, VpCI-146 is environmentally safe, non-toxic, biodegradable and doesn't contain any nitrites, phosphates, or silicates.

Cortec VpCI-146 paper is made from the highest quality neutral natural kraft paper: our paper is made without the use of chlorine or other chemical bleaching. This eliminates package contamination found with other competing VCI/VPI papers. VpCI-146 is easy to use. There are no chemical concentrations to calculate, no chemical tanks or application system to maintain. Just wrap your products in the paper, and fold edges together. Use adhesive tape as needed to hold paper folds in place. The VpCI coating on the paper vaporizes, reaching all metal surfaces to provide complete corrosion protection. The unique inhibiting action of Cortec VpCI forms a very thin and very effective protective layer that does not alter the appearance of products or require removal before further finishing or use. Parts protected with VpCI-146 can be painted, welded, and soldered. VpCI-146 protective layer does not influence physical properties of most sensitive electrical components, including conductivity and resistance.



VpCI-146 Creped Paper

Approved for direct contact with food according to Department of Health for Zagreb, Croatia, which is accredited according to European Standard HRN EN ISO/IEC 17025:2004.

### TYPICAL APPLICATIONS

Cortec® VpCI-146 paper can be used to protect products for storage and shipment in a wide variety of ways: the 146 Kraft wrap for single item packaging or interleaving; 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, nails, etc.
- Finished products: engines, machinery, equipment, tools, hardware, appliances, instruments, motors, etc.
- Electrical and electronic components, controls, etc.

### FEATURES

- One product for all ferrous and non-ferrous metals.
- Non-toxic. Contains no nitrites, phosphates, silicones, chromates, or other heavy metals.
- Fully recyclable, repulpable.
- 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 layer 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.
- Natural grade paper eliminates package contamination.
- Combines corrosion protection and packaging into one step.

### METHOD OF APPLICATION

Products should be packaged as soon after cleaning as possible, but completely dried of residual water. 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:** Neutral natural kraft paper, coated with VpCl material. The paper contains printed logo on reverse side to the coating. Also available in **creped** grade.

### 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**

### TYPICAL PROPERTIES

Property	TAPPI Method	Unit	VpCl-146	
Basis Weight, lbs	T-410	Lbs/3000ft <sup>2</sup> (g/m <sup>2</sup> )	35±2 (57±3)	60±3 (97±5)
Caliper (thickness)	T-411	Mils (μm)	3.7 (93)	6.7 (170)
Tear-MD	T-414	gms	32	114
Tear-CD	T-414	gms	45	135
Smoothness	T-538	Sheffield	200	280
Smoothness VpCl side	T-538	Sheffield	250	300

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 perped on the roll 12" x 12" (0.31 m x 0.31 m). Custom sizes and constructions available upon request, in both a 35 lbs and 60 lbs/3000sq. ft. paper.

### METALS PROTECTED

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

### 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 products 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  
Internet http://www.CortecVCI.com

printed on recycled paper  100% post consumer  
Revised 6/3/09. Cortec Corporation 2002-2009. All rights reserved. Supersedes: 7/11/07  
Cortec® is a trademark of Cortec Corporation

© 2009, Cortec Corporation. All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited.