



## HIGH PERFORMANCE VpCI® PACKAGING

# MilCorr™ VpCI® Shrink Film

## Patented



### PRODUCT DESCRIPTION

MilCorr™ VpCI® Shrink Film is a composite film containing the ultimate additives package: Cortec® multimetal Vapor phase Corrosion Inhibitors (VpCI®), flame retardant additives and UV (ultra violet) inhibitors. MilCorr™ VpCI® Shrink Film provides a top-notch universal protection system.

This product is designed to be an alternative to expensive multi-layer laminated flexible constructions and eliminates the need for vacuum packaging and dehumidification. This film is produced in a standard military tan color.

### ADVANTAGES

- Multimetal corrosion protection
- UV Protection
- Flame retardancy
- Extra strength and resistant to puncturing and tearing
- Effective with regular and irregular loads
- High shrink force for broad application
- Can be used for severe weather protection
- Shrink wrap below the pallet not affected by forks
- Provide unitized, tight and pilfer-proof load
- Extra protection for outdoor storage and export shipments
- Six-sided protection is possible
- Effective in severe outdoor climates
- Immediate use of protected object (vehicle, equipment, etc.) upon removal

### METALS PROTECTED

MilCorr™ VpCI® Shrink Film is compatible with and protects the following metals:

- Steel
- Iron
- Brass
- Copper
- Solder
- Aluminum
- Silver
- Nickel

For metals not specifically listed above, please contact Cortec for information regarding their protection.

### TYPICAL APPLICATIONS

- Military vehicles and equipment preservation
- Mothball preservation of industrial equipment
- Export packaging of expensive larger equipment
- Heavy equipment covers
- Recreational vehicle (boats, snowmobiles, etc.) preservation
- Pallet shrouds

### INSTRUCTIONS FOR USE

Shrinking can be performed in a tunnel, in an oven, by lowering a rectangular heating element over the load or by portable heating guns.

- Completely wrap or shroud equipment/vehicle to prevent entry of moisture and air
- Lay out bottom of film in desired storage area
- Place vehicle/equipment on film
- Overlay sheeting a minimum of 1 foot
- Use shrink tape to attach loose ends onto film
- Turn on shrink guns, carefully wave heat fan over film and shrink film to desired fit

Typical shrink temperature range: 340°-440°F  
171°-227°C  
Typical sealing temperature: 240°-320°F  
116°-160°C



**CORTEC**  
CORPORATION

Environmentally Safe VpCI®/MCI® Technologies

## TESTING

### UV Weathering Testing

- ASTM G 53-93 UV Weathering Test\*

Film conforms to military specifications MIL-PRF-22019 D and MIL-B-22020 D for barrier, flexible, sealable, volatile corrosion inhibitor treated materials.

\*Note. Test is in process. No corrosion and degradation of the film was observed after 2,100 hours of exposure.

### Corrosion Testing

- German VIA Test (German Military Std. TL-8135-002): Pass
- Cortec Razor Blade Test: Pass
- Cortec SO<sub>2</sub> Corrosion Test: Pass
- Cortec F-12 Cycling Corrosion Test: Pass

### Flame Retardancy Testing

- NFPA 701-1999 "Fire Test for Flame – Resistant Textiles and Films", Test #1: Pass

## TYPICAL PHYSICAL PROPERTIES

	TESTING DATA
Thickness	10-mils (250 microns)
Tensile Strength, psi (ASTM D 882-91)	MD 3451.8 TD 2049.9
Elongation, % (ASTM D 882-91)	MD 731.5 TD 884.7
Elmendorf Tear Strength, gf (ASTM D 1922-93)	MD 480.4 TD 2624.0
Puncture Resistance (ASTM D 3420-95)	325.3 g/mil

MD – Machine Direction  
TD – Transverse Direction

For safe handling information, please consult the Material Safety Data Sheet (MSDS).

## PACKAGING AND STORAGE

MilCorr™ VpCl® Shrink Film is available in sheeting and tubing form.

The film thickness ranges from 10 to 12 mils (250-300 microns).

Please contact Cortec for minimum quantities and specific sizes. Film should be stored indoors at ambient conditions, sealed in original packaging. Under these conditions, shelf life is up to 24 months.

**Note:** The data contained herein is furnished for information only. One or more United States or foreign patents or patent applications may cover this product.

## FOR INDUSTRIAL USE ONLY

## KEEP OUT OF REACH OF CHILDREN

## NOT FOR INTERNAL CONSUMPTION

## CONSULT MATERIAL SAFETY DATA SHEET FOR MORE 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 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.CortecVpCl.com>

printed on recycled paper  10% post consumer

Revised 6/14/04. Cortec Corporation 2002-2004. All rights reserved. Supersedes: 3/5/03.

MilCorr™, VpCl®, and Cortec® are trademarks of Cortec Corporation

