



VpCI®-144

Environmentally Friendly Moisture Barrier Paper, Powered by Nano-VpCI®, Patented



PRODUCT DESCRIPTION

EcoShield VpCI-144 is the premium moisture barrier corrosion inhibiting paper in the industry. Our patented Vapor phase Corrosion Inhibiting technology has revolutionized the way metals are protected in an enclosed package. EcoShield 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. This product also shows excellent oil and grease resistance.

Our EcoShield VpCI-144 paper is coated with a water-based barrier coating. Historically, polyethylene and wax coatings have been used to seal porous paper to provide a moisture barrier and/or moisture-vapor barrier. When coated this way the resulting paper product is an environmental problem and cannot be recycled through normal channels. EcoShield VpCI-144 paper provides an environmentally friendly alternative to polyethylene and wax paper, with water vapor barrier properties that are comparable to polyethylene coated paper.

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

EcoShield 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

chemicals. This eliminates package contamination found with other competing VCI/VPI papers. Parts protected with EcoShield 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 resistivity. 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

EcoShield 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 production: 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

- Combines corrosion protection, moisture barrier properties, oil and grease resistivity into one step
- Fully repulpable according to Fibre Box Association Voluntary Standard
- Contains no nitrites, phosphates, silicones, chromates, other heavy metals or toxic products
- Natural grade paper eliminates package contamination
- One product protects against corrosion of ferrous and non-ferrous metals
- Conforms to military specifications MIL-P-3420E
- Conforms to NACE Standards TM0208-2008 and RP0487-2000
- Protective film does not need to be removed prior to further surface finishing or coating application



METHOD OF APPLICATION

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

Use approximately 1 square foot (0.09 m²) of EcoShield VpCI paper for every 3 square feet (0.28 m²) of surface to be protected; and 1 square foot (0.09 m²) of VpCI paper for every 0.5 cubic foot (0.01 m³) of void space. For long-term storage of up to ten years, enclose the wrapped product in an airtight package.

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

METALS PROTECTED

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

PACKAGING AND STORAGE

Standard sizes: Converter rolls 48" x 26,000 feet (1.22 m x 7,925 m), roll stock 36" x 200 yards (0.91 m x 183 m), and 48" x 200 yards (1.22 m x 183 m). Custom sizes also available up to 100" (2.5 m) wide.

** Tested according to ASTM E-96, 73°F, 50%RH, Example test ranges for VpCI-144, a comparable polyethylene coated paper, and commercial wax paper.

FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN
KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION
CONSULT SAFETY DATA SHEET FOR MORE INFORMATION

TYPICAL PROPERTIES

Property	TAPPI Method	Unit	Cortec
Basis Weight	T-410	lbs/3000 ft ² (g/m ²)	54.8 (89.2)
Caliper (thickness)	T-411	mils (micrometers)	5 (125)
Tear-MD	T-414	g	47.5
Tear-CD	T-414	g	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 ²)	3.6 (38.8)
TEA-MD	T-494	ft-lbs/ft (J/m ²)	1.9 (20.5)
Stretch-CD	T-404	%	4.26
Stretch-MD	T-404	%	1.47
Ink floa	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	g loss/100 rev	0.007
Abrasion-VCI	T-476	g loss/100 rev	0.002

CD=Cross Direction

MD=Machine Direction

WATER VAPOUR BARRIER PROPERTIES

	VpCI-144	Polycoated Paper	Waxed Paper
WVTR** (g/hour•m ²)	0.61-0.69	0.47-0.71	6.5-6.9

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.

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