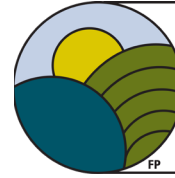




CORTEC
CORPORATION

Environmentally Safe VpCI®/MCI® Technologies



USDA
CERTIFIED
BIOBASED
PRODUCT
PRODUCT 92%

EcoBio™ VpCI®-146 Paper

World's First Certified Compostable VpCI®/VCI Paper, that is also USDA Certified Biobased Content as well as fully Recyclable/Repulpable!

DESCRIPTION

EcoBio™ VpCI®-146 Paper is a certified compostable corrosion inhibiting paper that relies on Cortec's patented biodegradable Vapor phase Corrosion Inhibiting Technology. Both sides of EcoBio™ VpCI®-146 Paper offer effective corrosion protection to ferrous and non-ferrous metals, eliminating the need to stock a variety of papers for different metal types.

EcoBio™ VpCI®-146 Paper is made from recycled paper stock and contains 92% USDA certified biobased content. After use, it can either be recycled in standard recycling streams or composted in an industrial composting facility. When composted, EcoBio™ VpCI®-146 Paper becomes humus with no eco-toxicity to the soil, making it a unique "circular economy" corrosion inhibiting packaging option.

PACKAGING & STORAGE

For sizing see page 2.

To ensure best product performance, store in original packaging, indoors, and out of direct sunlight at 40-100 °F (4-38 °C).

Shelf life: 2 years

HIGH PERFORMANCE VPCI® PACKAGING



FEATURES

- Meets EN 13432/ASTM D6400 standard for commercial composting
- Certified industrially compostable by TÜV Austria (#TA8012509007)
- Contains 92% USDA certified biobased content (recyclable)
- No nitrites, phosphates, silicones, chromates, or other heavy metals
- Protective layer does not need to be removed from metal prior to further surface finishing or coating
- Does not influence physical properties of most sensitive electrical or electronic components
- Fully recyclable, repulpable

BENEFITS

- One product for all ferrous and non-ferrous metals
- Combines corrosion protection and packaging into one step
- Effective protection by both sides of the paper eliminates packaging guesswork
- Protects dry or oiled metals during storage, transit, and overseas shipment
- Effective against aggressive environments including humidity, SO₂, H₂S, and galvanic corrosion from dissimilar metals.

APPLICATION

Simply wrap items in the paper and fold the edges together, taping as needed to hold paper in place. The VpCI® coating on the paper vaporizes, reaching all metal surfaces within the package to provide complete corrosion protection with a very thin, very effective VpCI® layer that does not alter product appearance or require removal before further finishing or use.

EcoBio™ VpCI®-146 Paper

METALS PROTECTED

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

TYPICAL PROPERTIES

Property	Units	Value
Basis Weight	lbs/3000 ft ² (g/m ²)	35±1.5 (57±2.5)
Caliper	Mils (µm)	4.0±0.2 (100±5)
Tear Strength	gms	CD* 50±5
		MD* 70±10
Tensile Strength	lb/in (N/mm)	23 (4)
Burst Strength (Mullen Test)	Psi (kPa)	20 (138)

*CD = Cross Direction

*MD = Machine Direction

SIZES

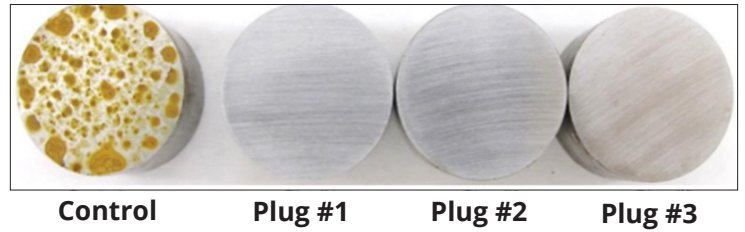
Standard Sizes, 35 lb/3000 ft ² (57 g/m ²)		
Roll Stock	Sheets	Perforated Rolls
12" x 600' (60.1 cm x 182.9 m)	4" x 8" (10.2 cm x 20.3 cm)	12" x 12" x 600' (30.5 cm x 30.5 cm x 182.9 m)
18" x 600' (45.7 cm x 182.9 m)	6" x 6" (15.2 cm x 15.2 cm)	
24" x 600' (60.1 cm x 182.9 m)	9" x 9" (22.9 cm x 22.9 cm)	
36" x 600' (91.4 cm x 182.9 m)	10" x 10" (25.4 cm x 25.4 cm)	
48" x 600' (121.9 cm x 182.9 m)	12" x 12" (30.5 cm x 30.5 cm)	
36" x 1200' (91.4 cm x 365.76 m)	16" x 16" (40.6 cm x 40.6 cm)	
	18" x 18" (45.7 cm x 45.7 cm)	
	24" x 24" (61 cm x 61 cm)	
	36" x 36" (91.4 cm x 91.4 cm)	

A wide variety of stock and custom sizes and constructions are also available upon request in 30 lb (49 g/m²), 35 lb (57 g/m²), 40 lb (65 g/m²), and 60 lb (98 g/m²) paper.

Printed and unprinted versions available.

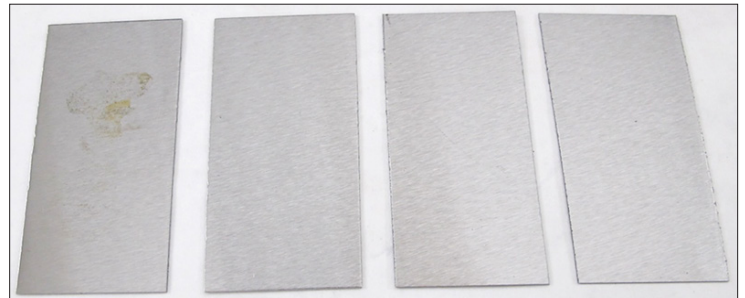
CORROSION TESTING DATA

NACE VIA



RAZOR BLADE TESTING

Razor blade testing on carbon steel panels



Control Protected with EcoBio™ VpCI®-146 Paper

Razor blade testing on copper panels



Control Protected with EcoBio™ VpCI®-146 Paper



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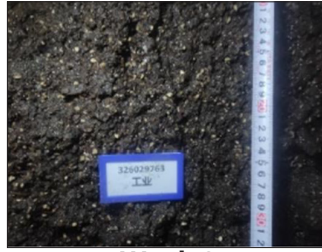
TÜV COMPOSTING TESTING



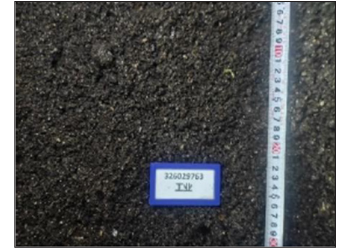
Before Test



Week 1



Week 8

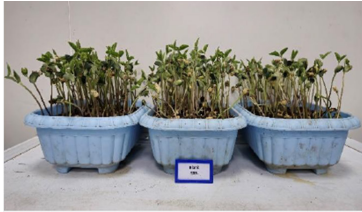


After Test (Week 12)

PLANT GROWTH IN THE RESULTING COMPOST

Parameters	Results			Requirement	Conclusion
	Plant	Mix ratio 25%	Mix ratio 50%		
Mean Germination Rate (%)	Soybean	98.6	99.7	≥ 90	Pass
	Corn	100.4	99.3		
Mean Dry Biomass/plant (%)	Soybean	99.1	99.4	≥ 90	Pass
	Corn	104.9	99.1		
Alternatively, Mean Wet Biomass/plant (%)	Soybean	101.0	100.1	≥ 90	Pass
	Corn	102.0	100.6		

SOYBEAN GROWTH - DURING TEST

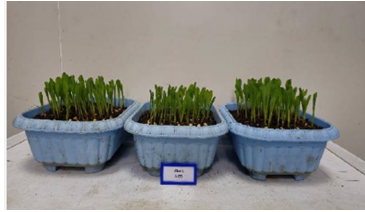


Blank Compost

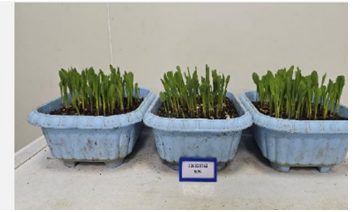


Sample Compost

CORN GROWTH - DURING TEST



Blank Compost



Sample Compost

SOYBEAN GROWTH - AFTER TEST

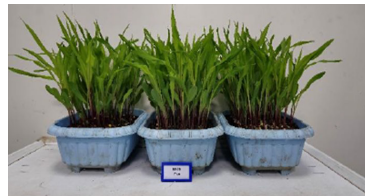


Blank Compost



Sample Compost

CORN GROWTH - AFTER TEST



Blank Compost



Sample Compost

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