

## EcoBio™ VpCI®-146 Paper

*First of its Kind VpCI® Paper: Certified Compostable, USDA Biobased, and Recyclable*

### 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, SO<sub>2</sub>, H<sub>2</sub>S, 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 ( $\leq 30\%$  Zn)
- Solder

## TYPICAL PROPERTIES

| Property                     | Units                                        | Value           |
|------------------------------|----------------------------------------------|-----------------|
| Basis Weight                 | lbs/3000 ft <sup>2</sup> (g/m <sup>2</sup> ) | 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

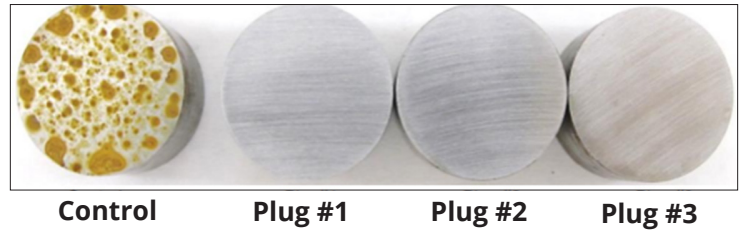
\*MD = Machine Direction

## SIZES

| Standard Sizes, 35 lb/3000 ft <sup>2</sup> (57 g/m <sup>2</sup> )                                                                                                                                                     |                                  |                                                      |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------|--|
| Roll                                                                                                                                                                                                                  | Sheets                           | Perforated Rolls                                     |  |
| 12" x 600'<br>(60.1 cm x 182.9 m)                                                                                                                                                                                     | 4" x 8"<br>(10.2 cm x 20.3 cm)   | 12" x 12" x 600'<br>(30.5 cm x 30.5 cm<br>x 182.9 m) |  |
| 18" x 600'<br>(45.7 cm x 182.9 m)                                                                                                                                                                                     | 6" x 6"<br>(15.2 cm x 15.2 cm)   |                                                      |  |
| 24" x 600'<br>(60.1 cm x 182.9 m)                                                                                                                                                                                     | 9" x 9"<br>(22.9 cm x 22.9 cm)   |                                                      |  |
| 36" x 600'<br>(91.4 cm x 182.9 m)                                                                                                                                                                                     | 10" x 10"<br>(25.4 cm x 25.4 cm) |                                                      |  |
| 48" x 600'<br>(121.9 cm x 182.9 m)                                                                                                                                                                                    | 12" x 12"<br>(30.5 cm x 30.5 cm) |                                                      |  |
| 36" x 1200'<br>(91.4 cm x 365.76 m)                                                                                                                                                                                   | 16" x 16"<br>(40.6 cm x 40.6 cm) |                                                      |  |
|                                                                                                                                                                                                                       | 18" x 18"<br>(45.7 cm x 45.7 cm) |                                                      |  |
|                                                                                                                                                                                                                       | 24" x 24"<br>(61 cm x 61 cm)     |                                                      |  |
|                                                                                                                                                                                                                       | 36" x 36"<br>(91.4 cm x 91.4 cm) |                                                      |  |
| A wide variety of custom sizes and constructions are also available upon request in 30 lb (49 g/m <sup>2</sup> ), 35 lb (57 g/m <sup>2</sup> ), 40 lb (65 g/m <sup>2</sup> ), and 60 lb (98 g/m <sup>2</sup> ) paper. |                                  |                                                      |  |
| Printed and unprinted versions available.                                                                                                                                                                             |                                  |                                                      |  |

## CORROSION TESTING DATA

### NACE VIA



### RAZOR BLADE TESTING

#### Razor blade testing on carbon steel panels



#### Razor blade testing on copper panels



**CORTEC**  
CORPORATION

Environmentally Safe VpCI®/MCI® Technologies

# EcoBio™ VpCI®-146 Paper

## TÜV COMPOSTING TESTING



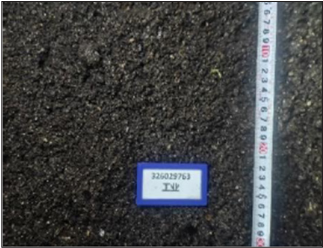
Before Test



Week 1



Week 8

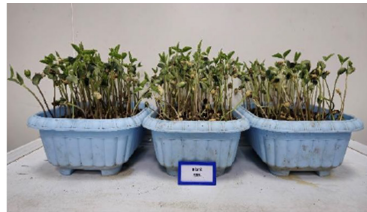


After Test (Week 12)

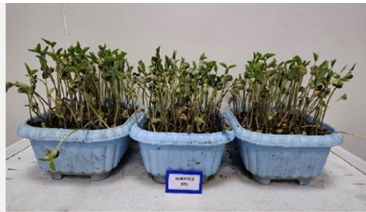
## PLANT GROWTH IN THE RESULTING COMPOST

| 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

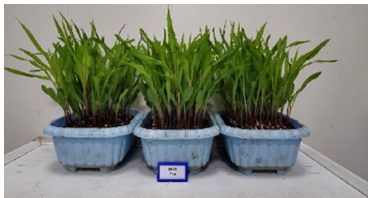


Blank Compost



Sample Compost

### CORN GROWTH - AFTER TEST



Blank Compost



Sample Compost

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Phone (651) 429-1100  
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productinfo@cortecvci.com  
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