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## HIGH PERFORMANCE VpCI® PACKAGING

# EcoShield® Barrier Coating for Paper and Corrugated

Environmentally friendly replacement for polyethylene and wax paper coatings



### PRODUCT DESCRIPTION

EcoShield® Barrier Coating is a water borne barrier coating that is recyclable and 100% repulpable, effectively eliminating the need to use traditional wax and polyethylene papers. In addition, the coating can be utilized on kraft and recycled paper to seal the surface from contaminants that could cause corrosion. The combination of a contaminant sealant and a repulpable coating for kraft paper makes EcoShield® Barrier Coating a pioneer in the packaging industry. This material can also be used as a coating on liners for corrugated boxes providing a waterproof moisture barrier. EcoShield® Barrier Coating also gives excellent oil and grease resistance.

Historically, polyethylene and wax coatings have been used to seal porous paper, corrugated boxes, and sheets to provide a moisture barrier and/or moisture-vapor barrier to these substrates. The resulting paper product is an environmental problem and cannot be recycled through normal channels.

### TYPICAL APPLICATIONS

EcoShield® Barrier Coating can be applied by most common paper roll coaters, including gravure, flex, air-knife, reverse-roll, etc. Drying temperature is 180°-200°F (82°-93°C). Suggested weights are 8-11 lb/ream (3000 sq.ft.) (13-18 g/m<sup>2</sup>).

### FEATURES

- Very low Moisture Vapor Transmission Rate (MVTR), comparable to that of polycoated or waxed paper
- Excellent oil and grease resistance (3M kit value of 12)
- Fully recyclable (repulpable)
- Non-toxic, environmentally friendly
- Complies with FDA regulations under 21 code of Federal Regulations:
  - 176.170-Components of paper and paperboard in contact with aqueous and fatty foods
  - 176.180-Components of paper and paperboard in contact with dry food

**Note:** Coated papers will produce better physical properties such as burst, tear, tensile strength, elongation, folding endurance, coefficient of friction, and smoothness.

### TYPICAL PROPERTIES

EcoShield® Barrier Coating	Milky White to off white viscous liquid
Non-volatile content	45-49%
pH	9.3-10.3 (Neat)
Density	8.8-9.2 lb/gal (1.05-1.10 kg/l)
Solvent Composition	100% water

**Note:** Heavier coating weights are suggested for lower WVTR (Water Vapor Transmission Rate)

### PACKAGING AND STORAGE

EcoShield® Barrier Coating is available in 5 gallon (19 liter) plastic pails, 55 gallon (208 liter) metal drums, liquid totes, and bulk.

Keep from freezing.



# WATER VAPOR BARRIER PROPERTIES

	EcoShield® Barrier Coating for Paper	Polycoated Paper	Waxed Paper
WTR** (g/hour*m <sup>2</sup> )	0.61-0.69	0.4-0.71	6.5-6.9

\*\*Tested according to ASTM E-96, 73°F, 50% RH, Example test ranges for: EcoShield® Barrier Coated Paper (45# 3msf Natural Kraft Paper, 10# Coating) a comparable polyethylene coated paper (40# 3msf paper, 6# PE coating) and commercial waxed paper.

**FOR INDUSTRIAL USE ONLY  
KEEP OUT OF REACH OF CHILDREN  
KEEP CONTAINER TIGHTLY CLOSED  
NOT FOR INTERNAL CONSUMPTION**

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