Finally! A Recyclable Moisture Barrier Coating for the Food Packaging Industry

Retail and consumer food packaging often relies on polyethylene or “wax” coated paper and cardboard to resist moisture and seal out contaminants. The problem is that these packaging materials are much more difficult to re-pulp than regular uncoated paper and corrugated board and typically cannot be recycled through normal channels. To replace these environmentally problematic materials, Cortec® Corporation has pioneered EcoShield® Barrier Coating, an environmentally friendly alternative to polyethylene and wax paper coatings for the manufacture of moisture resistant paper and corrugated boxes.

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 coatings. The coating can be used
on kraft and recycled paper, as well as on liners for corrugated boxes, providing a waterproof moisture barrier with excellent oil and grease resistance. When tested according to ASTM E-96, paper coated with EcoShield® Barrier Coating showed very good water vapor barrier properties compared to a polyethylene coated paper and better than commercial waxed paper.

<table>
<thead>
<tr>
<th>Water Vapor Transmission Rate</th>
<th>EcoShield® Barrier Coating for Paper</th>
<th>Polycoated Paper</th>
<th>Waxed Paper</th>
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<tbody>
<tr>
<td>WVTR* (g/hour•m²)</td>
<td>0.61-0.69</td>
<td>0.4-0.71</td>
<td>6.5-6.9</td>
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</table>

Papers coated with EcoShield® Barrier Coating also have better physical properties such as burst, tear, and tensile strength; elongation, folding endurance, coefficient of friction, and smoothness.

EcoShield® Barrier Coating is formulated in compliance with FDA Code of Federal Regulations Title 21:

- §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

It 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), and suggested paper weights are 8-11 lb/ream (3,000 ft²) (13-18 g/m²).
EcoShield® Barrier Coating is a revolutionary coating for the food industry and other sectors that need a recyclable moisture barrier to replace polyethylene coatings. Thanks to Cortec’s groundbreaking innovation of a repulpable coating that seals contaminants and moisture out of paper/corrugated materials, package manufacturers are now set to transform the industry and make moisture barrier packaging easier on recyclers and the environment!

Learn more about this exciting alternative to polyethylene and wax paper coatings today:


*Tested according to ASTM E-96, 73 °F (23 °C), 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.

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