

EcoShield® Recyclable Barrier Paper and Linerboard

USDA Certified Biobased 65%

DESCRIPTION

EcoShield® Paper is the premium recyclable and repulpable moisture barrier paper in the industry. It is coated with a water-based barrier coating that resists moisture, grease, and oil. It is also available as linerboard.

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® Paper provides a competitive environmentally friendly alternative to polyethylene and wax paper, with comparable water vapor barrier properties. It is fully repulpable into other types of paper products such as boxes, cardboard, and other corrugated materials.

PACKAGING & STORAGE

EcoShield® Recyclable Paper and Linerboard is available in a wide variety of custom roll and/or sheet sizes. Different weights and paper types available on request.

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 PACKAGING



FEATURES

- Barrier coated paper
- Water Vapor Transmission Rate (WVTR) comparable to polycoated paper and much superior to waxed paper
- Oil and grease resistance
- Fully recyclable (repulpable)
- Non-hazardous, environmentally friendly
- Passes TAPPI T 240 om-12 Repulpability Testing (**See Table 1**)
- Components 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
- UNI 11743:2019 and the System of Evaluation Aticelca 501:2019 (**See Table 2**)

TYPICAL PROPERTIES

Property	TAPPI	Unit	EcoShield® N45 Paper	EcoShield® N42 Linerboard
Basis Weight	T-410	lb/3,000 ft² (g/m²)	45±3 (73±5)	136±5 (221±8)
Caliper	T-411	Mil/µm	4.5±3 (114±12)	15±2 (381±50)

TYPICAL APPLICATIONS

EcoShield® Repulpable Paper and Linerboard can be used in a variety of applications, such as packaging oily and greasy parts or protecting other moisture sensitive components.

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WATER VAPOR BARRIER PROPERTIES

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

***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.

TABLE 1. REPULPABILITY ANALYSIS

Results*	Trial 1	Trial 2
% of Rejects	13.9	13.6
% Fiber Yield of Sample (85%)	86.1	86.4
Observe and note deposition on vessel walls, screens, moving parts, etc.	No	No
Deposition Observed? No If yes, detail below	N/A	N/A
SUMMARY		
Operational Impact	Pass	Pass
Yield	Pass	Pass

*Methods and Notes:

TAPPI T 240 om-12 Consistency (concentration) of pulp suspensions

For dry/semi-dry sheet pulps, samples aren't diluted or filtered. Consistency is determined after equilibrating the entire sample (cut into specimens) in a sealed plastic bag for a minimum of one hour, two specimens are removed from the plastic bag and dried for a minimum of four hours.

FBA Voluntary Standard for Repulping and Recycling

The final pH for Trial 2 fell below 6.5

TABLE 2. RECYCLABILITY ASSESMENT SYSTEM RESULTS

Recyclability Assesment System Aticelca 501:2019	EcoShield® Barrier Paper Recyclable with Paper				Polyethylene Coated Paper
	Level A+	Level A	Level B	Level C	Not Recyclable with Paper
Coarse Reject (%)	<1.5	1.5-10.0	10.1-20.0	20.1-40.00	>40.0
Area Macrostickies ø<2000 µm. (mm ² /kg)	<2.500	2.500-10.000	10.001-20.000	20.001-50.000	>50.000
Fibre Flakes (%)	<5.0	5.0-15.0	15.1-40.0	>40.0	
Adhesiveness	Absent	Absent	Absent	Absent	Present
Optical Inhomogeneity	Level 1	Level 2	Level 3	Level 3	



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