

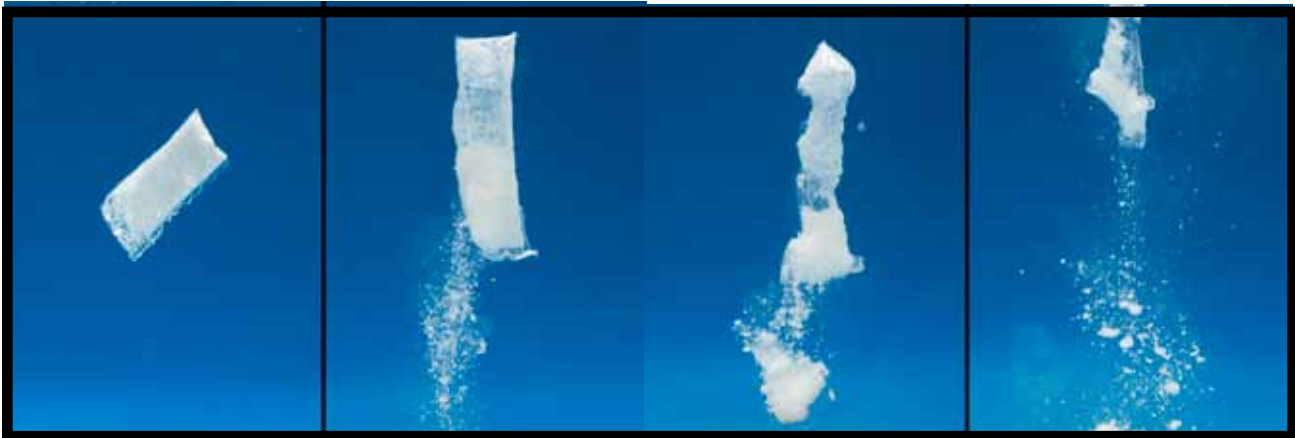
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HIGH PERFORMANCE VpCI® PACKAGING

EcoSol®

Water soluble packaging solution



PRODUCT DESCRIPTION

EcoSol is a water soluble, biodegradable, polyvinyl-alcohol (PVOH) film ideally suited for many packaging applications. Water soluble PVOH bags, sachets, or pouches created from this film provide a convenient, safe, and economical delivery system for a wide range of products; including detergents and cleaners, degreasers, concrete additives, pigments, biocides, water-treatment products, agricultural products, and others.

EcoSol film has excellent organic solvent resistance, which allows EcoSol pouches and bags to be used not only for dry powders, but also for liquid products.

EcoSol offers very good mechanical properties: tensile strength, tear strength, puncture resistance. These properties allow EcoSol to be used in a wide variety of rigorous applications.

EcoSol expands Cortec's line of biodegradable materials: after a few minutes of immersion at the specified temperature, EcoSol dissolves in water leaving a harmless, non-toxic, aqueous solution of polyvinyl alcohol. Once the liquid solution of PVOH comes into contact with common microorganisms, such as those found in water-treatment plants, conversion to carbon dioxide and water takes place within about 30 days.

ADVANTAGES

- Improves accuracy of dosing
- Wide range of uses
- Biodegradable
- Resistant to organic solvents
- Heat-sealable
- Can be printed with standard inks
- Eliminates direct handling of powders and liquids

TYPICAL USES

EcoSol can be used for packaging:

- Detergents and cleaners
- Degreasers
- Concrete additives
- Pigments
- Water-treatment products
- Biocides
- Agricultural products
- Bathing products
- Cosmetic industry (disposable cases)
- Laundry bags for hospitals



APPLICATION

Remove the outer barrier bag and place the EcoSol bag and its contents into water. The time required for dissolution varies, depending on thickness of EcoSol and the temperature of water.

For example, EcoSol 1.5 mil (37.5 microns) thickness at 68°F (20°C) begins to dissolve within 30 seconds and is fully dissolved in 5 minutes.

PHYSICAL PROPERTIES

Appearance Clear transparent film

Chemically Reistant to:

- Mineral, vegetable, animal oils
- Aliphatic hydrocarbons
- Ethers, Esters, Ketones

AVAILABILITY

Available in sheeting, tubing, and bags from 4" to 19". Contact Cortec Corporation customer service for available sizes.

PACKAGING and STORAGE

EcoSol is packaged in barrier film. Keep in dry storage area at 20-22°C (68-72°F). Shelf life of the product is 2 years, if barrier film is kept intact.

FOR INDUSTRIAL USE ONLY

KEEP OUT OF REACH OF CHILDREN

KEEP CONTAINER TIGHTLY CLOSED

NOT FOR INTERNAL CONSUMPTION

CONSULT SAFETY DATA SHEET FOR MORE

INFORMATION

MECHANICAL PROPERTIES

Property		Test Method	Units	EcoSol
Caliper		ASTM D6988	mil	2.00
Breaking Factor	MD	ASTM D882-02	lbs/in	7.74
	TD			8.1
Tensile Strength at Break	MD	ASTM D882-02	psi	3868.5
	TD			4049
Elongation at Break	MD	ASTM D882-02	%	173.16
	TD			186.37
Yield Strength	MD	ASTM D882-02	psi	1611.27
	CD			2985.33
Tear Strength	MD	ASTM D1922-06a	mN	871.13
	CD			494.43
Dart Drop Impact Resistance		ASTM D1709-04, Test Method A	grams	880.2
Seal Strength			lbs	3.82

*Typical properties represent average laboratory values and are not intended as specifications but as guides only.

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