



Eco-Corr® ESD

Biodegradable VpCI Static Dissipative Film and Bags, Patented



BIODEGRADATION TIMELINE

t= 0

t= 15 days

t= 30 days

t= 76 days

t= 93 days

PRODUCT DESCRIPTION

Eco-Corr® ESD is a 100% biodegradable and compostable film utilizing Cortec's patented VpCI® technology along with eliminating static electricity. In addition to offering 100% biodegradability, 100% compostability and VpCI technology, Eco-Corr® ESD provides better tensile strength, tear strength and ultimate elongation than low density polyethylene films. Eco-Corr® ESD is also heat and water stable and does not disintegrate or break apart while in use.

Eco-Corr® ESD is certified 100% biodegradable and compostable by the Biodegradable Products Institute/ United States Composting Council (BPI/USCC) according to ASTM D6400. When placed in a typical commercial composting environment, Eco-Corr® ESD films will fully biodegrade into carbon dioxide and water within a matter of weeks. There is no ecotoxicity to the soil, plants or microorganisms involved in this process. The exact time for films to biodegrade is dependent upon the conditions and activity of the disposal environment (temperature, soil quality, activity of microorganisms). Eco-Corr® ESD films are shelf stable and will not break down prematurely until

disposed of in a proper composting environment.

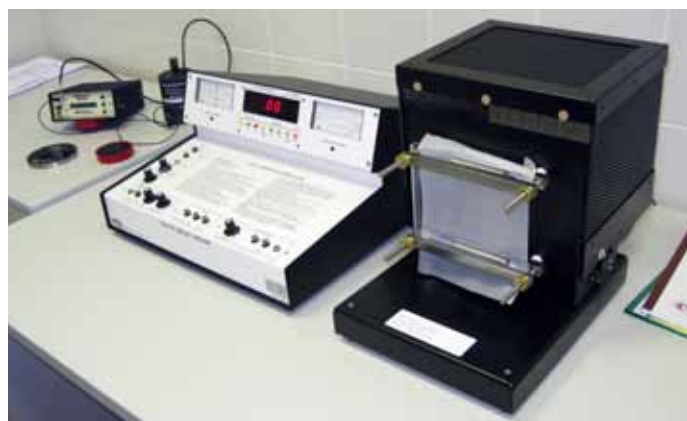
Eco-Corr® ESD is patented under US patents 6,028,160 and 6,156,929.

FEATURES

- 100% biodegradable, 100% compostable packaging film that provides contact, barrier, vapor corrosion inhibition and antistatic properties
- Provides multimetal corrosion protection
- Meets NACE TM0208-2008 standard for corrosion protection. Conforms to NACE Standard Recommended Practice RP0487-2000 Considerations in the "Selection of Vapor Corrosion Inhibitors".
- Meets German TL-8135-002 standard for corrosion protection
- Complete replacement for non-degradable and barrier films and desiccants
- Meets ASTM D 6400-99 standard for Biodegradation used by DIN Certco, BPS, BPI and others
- Static Dissipative properties conform to MIL-PRF-81705D

MILITARY STANDARDS

MIL-PRF-81705D				
Federal Test Methods No. 101C, Method 4046				
Sample #	Surface Resistivity (Ohm/Sq)		Static Decay Rate (sec)	
	Limit 1.0 x 10 ⁵ to 1.0 x 10 ¹²		Limit 2 seconds	
	Outside	Inside	+5000 Volts	-5000 Volts
1	9.1 x 10 ⁹	9.0 x 10 ⁹	0.03	0.03
2	1.0 x 10 ¹⁰	9.4 x 10 ⁹	0.03	0.03
3	9.2 x 10 ¹⁰	1.0 x 10 ¹⁰	0.02	0.03
4	1.0 x 10 ¹⁰	8.0 x 10 ⁹	0.03	0.03
5	1.1 x 10 ¹⁰	9.2 x 10 ⁹	0.03	0.03
6	1.0 x 10 ¹⁰	9.6 x 10 ⁹	0.03	0.03



Eco-Corr® ESD:

Static Decay testing at Cortec Laboratories

MECHANICAL PROPERTIES

Property		Test Method	Units	Eco-Corr ESD	VpCI-126
Caliper		ASTM D6988	mil	2.00	2.00
Breaking Factor	MD	ASTM D882-02	lbs/in	10.40	18.88
	TD			10.81	18.25
Tensile Strength at Break	MD	ASTM D882-02	psi	4728.20	3184.35
	TD			4699.10	3109.60
Elongation at Break	MD	ASTM D882-02	%	759.38	770.37
	TD			795.89	833.65
Yield Strength	MD	ASTM D882-02	psi	991.44	793.85
	CD			1093.16	1425.18
Tear Strength	MD	ASTM D1922-06a	mN	3719.95	15852.96
	CD			4959.94	20279.24
Dart Drop Impact Resistance		ASTM D1709-04, Test Method A	grams	> 1300	753.28

* Typical mechanical properties represent average laboratory values and are intended as guides only, not as specifications. Film properties are typical of blown film extruded at a blowup ratio of 2.5:1, but are dependent upon operating conditions.

APPLICATIONS

Metal parts packaged in Eco-Corr® ESD receive continuous protection against salt, excessive humidity, condensation, moisture, aggressive industrial atmosphere and dissimilar metal corrosion. The Vapor phase Corrosion Inhibitors vaporize and then condense on all metal surfaces in the enclosed package. VpCI reaches every area of your part, protecting its exterior as well as hard to reach interior surfaces. You get complete product protection during storage as well as during domestic and overseas shipments, virtually eliminating any rust claims.

Once the film is no longer needed, Eco-Corr® ESD can be composted and will degrade into carbon dioxide and water within weeks.

SHELF LIFE

For shipping and storage applications, Eco-Corr® ESD is a great alternative to conventional polyethylene films. Eco-Corr® ESD has a shelf life of up to two years, when sealed in original packaging.

in contact with material containing microorganisms, such as certain types of waste, soil, and compost. Under these conditions, 100% disintegration will occur within a few weeks with no residual contamination of the soil.

PACKAGING

Eco-Corr® ESD is available in standard sizes 36" (91.4cm) width x 500' (152,4 meters) length and 48" (122 cm) width x 500' (152,4 meters) length rolls, as well as a wide variety of custom sizes and forms. Custom products include single wound sheeting, double wound sheeting, U-sheets, M-sheets, center folds, gusset tubes, converted bags made from these types of film and perforated or bag-on-a-roll products.

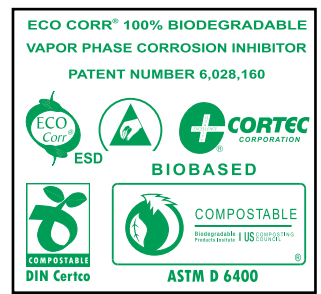
FOR INDUSTRIAL USE ONLY

KEEP OUT OF REACH OF CHILDREN

KEEP CONTAINER TIGHTLY CLOSED

NOT FOR INTERNAL CONSUMPTION

CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION



Printing pattern for
Eco-Corr® ESD

Once removed and put to use, Eco-Corr® ESD will remain effective with regard to mechanical strength until film is placed

LIMITED WARRANTY

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All Eco Film® and Eco Works® formulations are certified compostable per ASTM D 6400 by BPI and DIN Certco.

