



# Eco-Corr Film® ESD – Biodegradable VpCI® Permanent Films & Bags

## PRODUCT DESCRIPTION

Eco-Corr Film® ESD are biodegradable and compostable high-performance anti-static, corrosion inhibiting film and bags for use in the protection of static sensitive multi-metal items such as electronics. They contain permanent anti-static properties to immediately reduce or eliminate static buildup as long as the films or bags are in use, independent of the presence of humidity. They also form a molecular corrosion inhibiting layer on metal substrates and do not interfere with the physical or chemical properties of electronic components. The film and bags replace conventional rust preventatives such as oils and desiccants and allow your product to be used immediately without cleaning or degreasing. Eco-Corr Film® ESD is compostable. When placed in a typical commercial composting environment,\* Eco-Corr Film® ESD will disintegrate within 2 -3 months. 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 Film® ESD is shelf stable and will not break down prematurely until disposed of in a proper composting environment.

## PACKAGING & STORAGE

Available in custom-size bags (heat-sealable), film, and tubing. Thicknesses range from 50- 120 microns. To ensure best product performance, store in original packaging, indoors, and out of direct sunlight at 4-38 °C.

Shelf life: 2 years



## FEATURES

- Contains Vapor phase Corrosion Inhibitors (VpCI®) to protect void spaces and recessed areas
- Contains permanent anti-static agent
- Does not affect optical properties
- Does not affect plastics used in electronics industry
- Does not contain free amines or harmful Prop 65 ingredients
- Biodegradable, compostable packaging film that provides contact, barrier, and vapor corrosion inhibition
- Meets NACE TM0208-2008 standard for corrosion protection
- Meets German TL-8135-002 standard for corrosion protection
- Complete replacement for non-degradable and inferior blend films
- Static Decay rate conformance to MIL-PRF-81705D
- No ill effects on solderability of PCB, meeting the requirements of IPC-J-STD-003C, Am1 ( Edge Dip Solderability Tests)

## APPLICATION

Eco-Corr Film® ESD is recommended for packaging of static-sensitive components where triboelectric charge generation and corrosion are concerns. It is very effective for packaging integrated circuits, printed circuit boards, PCB components, telecommunications equipment, electronic and electrical panels and enclosures.

**\* This product is intended to be composted in a commercial composting facility operated in accordance with best management practices. These do not exist in many communities. Check locally to see if such a facility exists in your community and if they will accept this product. Not suitable for backyard composting.**

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## Antistatic Properties

Military Standards: MIL-PR8-81705 Test Method No101C, Method 4046 International standard: IEC 61340-5-1			
Surface Resistivity (Ohm/Sq)		Static Decay Rate (sec)	
Limit $1.0 \times 10^5$ to $1.0 \times 10^{12}$		Limit 2 seconds	
Outside	Inside	+ 5000 Volts	- 5000 Volts
$1,8 \times 10^{10}$	$2,0 \times 10^{10}$	0,12	0,18

## Mechanical Properties

Property		Test Method	Units	Eco-Corr® ESD	VpCI®-126 Blue
Caliper		ASTM D6988	µm	50	50
Breaking Factor	MD	ASTM D882-02	N	30,88	22,77
	CD			24,30	25,74
Tensile Strength at Break	MD	ASTM D882-02	MPa	19,16	18,01
	CD			17,29	19,30
Elongation at Break	MD	ASTM D882-02	%	320,1	366,2
	CD			573,0	578,3
Tear Strength	MD	ASTM D1922	mN	7952,64	1464,96
	CD			3296,16	6749,28
Impact Puncture		ASTM D3420-0495 B	N	19567,68	9260,64
			J	1,40	0,80

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.



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