

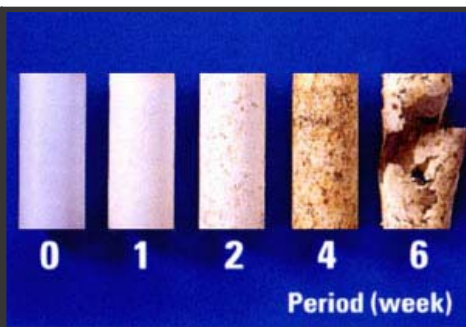


# HIGH PERFORMANCE VpCI PACKAGING

## Eco Film™ Cryogenic, Patent Pending Extreme Low Temperature Packaging Material



Eco Film Ready for Freezer Storage



Eco Film Degrades Within Weeks



Plastic Contaminating Compost

### PRODUCT DESCRIPTION

Eco Film™ Cryogenic is a DIN V 54 900 and BPS certified compostable and biodegradable packaging material specifically formulated for low temperature packaging. An ideal replacement for LDPE, HDPE and similar films, Eco Film™ Cryogenic is a unique combination of strength, versatility and resiliency. Even under the most extreme conditions, Eco Film™ Cryogenic retains its moisture resistance and strength allowing frozen food products, medical instruments and high value equipment to be securely shipped and stored.

Unlike standard polyethylene packaging materials used today, Eco Film™ Cryogenic has improved resistance to incidental exposure to liquid nitrogen, "dry ice" and similar chemicals. Once the packaging film has been used, it will biodegrade under compost conditions within weeks. The same microorganisms that break down leaves, grass clippings and other organics will ingest the Eco Film™ Cryogenic and release carbon dioxide and water. Although the amount of time needed for this process to occur varies depending on the compost conditions, under standard compost conditions Eco Film™ Cryogenic will visually change within 1-3 weeks and be entirely converted into carbon dioxide and water by the time the compost is ready for sale or use.

As most waste content studies describe, food-packaging films account for a large portion of landfill space. Additionally, plastic is the single largest contaminant in commercial compost. By switching to Eco Film™ Cryogenic this contamination is entirely eliminated.

### TYPICAL PROPERTIES of blown film, 2 mils (50 microns)

| Property                    | Test method | Unit                                  | Value     |         |
|-----------------------------|-------------|---------------------------------------|-----------|---------|
|                             |             |                                       | Eco Film™ | LDPE    |
| Tensile strength            | ISO 527     | N/mm <sup>2</sup>                     | 32/36     | 26/20   |
| Ultimate strength           | ISO 527     | N/mm <sup>2</sup>                     | 32/36     | -----   |
| Ultimate elongation         | ISO 527     | %                                     | 580/820   | 300/600 |
| Tear propagation resistance | DIN 53363   | N/mm                                  | 236/124   | -----   |
| Permeation rates: oxygen    | DIN 53380   | Cm <sup>3</sup> /m <sup>2</sup> d·bar | 1600      | 2900    |

### FEATURES

- Contains NO POLYETHYLENE
- 100% biodegradable (certified under DIN V 54 900)
- Conforms to ASTM D 6400-99
- Long shelf-life and useful life
- Superior physical, mechanical strength
- Low MVTR, oxygen permeation rates



## APPLICATIONS

- Food packaging
- Frozen foods, freezer bags
- Medical cryogenic packaging
- Import/export of goods while frozen
- Incidental contact of package with liquid nitrogen
- Ice cream packaging

## AVAILABILITY

- Retail boxes
- Industrial rolls
- Standard and custom forms
- Laminate ready flat film
- Flat, gusset, tubing, centerfold, U-sheets, M-sheets, perfed-on-roll, drawstring

## SHELF LIFE

For shipping and storage applications, *Eco Film™* Cryogenic will retain its original strength for two years or longer. *Eco Film™* Cryogenic degrades ONLY when exposed to compost conditions (microorganisms, etc), therefore under normal storage conditions *Eco Film™* Cryogenic will not biodegrade. Storage of *Eco Film™* Cryogenic while in direct contact with soil is not recommended as the film will begin to biodegrade.

## 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**

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