



# Envelope Window Film®

September 2011



**EnviroSafe®**

**EWF® 22DG**



## Biodegradable Polystyrene QUICK FACTS

### *Eco-Efficient Options without Compromising Performance*

*In response to the green revolution, responsible manufacturers are developing green product innovations as alternatives to traditional products. **MULTI-PLASTICS, INC.** has taken that one step further by offering responsible products without compromising on product performance or characteristics. Today, companies are struggling with the green alternatives that are creating downtime and additional expense. With composting and recycling still not available in many parts of our world, EnviroSafe EWF 22DG can provide a solution which addresses the realities of actual disposal environments.*



#### **EnviroSafe EWF 22DG**

Is a biodegradable polystyrene Envelope Window Film engineered by using an additive to accelerate the initial degradation and ultimately biodegradation of the polystyrene in common disposal environments. The additives are activated by light, heat, and / or oxygen. These additives begin to break down the polymer molecules in the EWF 22DG without microbes being present resulting in reduced molecular weight. The resulting residues then begin the process of biodegradation.



#### **Postal Automation**

EnviroSafe EWF 22DG has been designed to meet or exceed all postal standards for use in automation for discounted mailings. Gloss and haze properties are designed to provide the clearest, most readable path for automation to do its job.



#### **Economic Benefits of Processing and Converting EnviroSafe EWF 22DG**

There are **NO** process changes necessary! EnviroSafe EWF 22DG will process the same as traditional polystyrene envelope window films using the same adhesives. Additionally, EnviroSafe EWF 22DG still maintains the low scratch and low dust characteristics you have come to depend on using EWF 2009 LDLJ. Using EnviroSafe EWF 22DG will add a nominal percentage increase to the overall cost of 1,000 patches in a #10 envelope when compared to EWF 2009 LDLJ. However, the bottom line costs of productivity and ease of processibility will be far lower than with other known ecological choices.



## EnviroSafe EWF 22DG Environmental Impacts

- **Better Yield** – Compared to other environmentally green products, EnviroSafe EWF 22DG requires 19% less material to window the same job.
- **Biodegradable** - An independent, third party lab has confirmed that EnviroSafe EWF 22DG has reached a suitable molecular weight and validated experimentally that biodegradation is occurring according to ASTM D6954-04 test guidelines. This process involves the following steps or tiers which simulate real world conditions:
  - Tier 1 - ASTM D5208-09 – After the plastic has performed its intended purpose, the plastics undergoes a deterioration of chemical, physical, and mechanical properties when exposed to light, heat, and water.
  - Tier 2 - ASTM D5338-11 – Aerobic biodegradation of plastic materials under controlled composting conditions
- **Recyclable** - Because it is made with polystyrene, it is fully compatible with existing recycling streams.



## Life Expectancy of EnviroSafe EWF 22DG

Envelope manufacturers are encouraged to process EnviroSafe EWF 22DG within one year of purchase date. Envelopes windowed with EnviroSafe EWF 22DG have a controlled life span of 5 years before degradation and ultimately biodegradation will change the physical properties enough to affect processing.



## Are the byproducts of the degradation process toxic?

The additives used in EnviroSafe EWF 22DG are non-toxic and comply with CONEG and US-FDA regulations.



## Recommended Storage

It is recommend to store traditional polystyrene film in a cool dry place. However, we recommend keeping EnviroSafe EWF 22DG away from heat and light sources. Storing un-used rolls in their original packaging can assist with this protection.



## Heat stability of EnviroSafe EWF 22DG

This film is heat stable, even under extreme storage and handling situations. Polystyrene film is commonly used in applications up to 190°F without distortion.



## Available Gauges

.00115" is our standard stock thickness

A minimum order requirement would be necessary for other gauges. Contact your sales representative at 800-848-6982 for more details.