

## Did you know?

- The industry is rushing to provide clarification of even the most basic terminology in order to focus their efforts effectively. Terms such as: "Green," "Sustainable," "Degradable," "Biodegradable" and "Fragmentation". Make sure you understand each before going forward with an environmental initiative.
- Determine what you're trying to accomplish by going "Green" before making the decision to convert your packaging.
- Being environmentally friendly can be profitable if there is a clear vision and you know your stakeholders.
- Consumer awareness of "Green" issues has been elevated through media outlets and NGO lobbying efforts.
- Be weary of "Greenwashing" by manufacturers and vendors. This is the act of touting claims and or exaggerating claims of your products or services without data to back up those claims.
- Make sure not to sell or market a "Green" product solely on its environmental benefits. There needs to be some non-green value in order for it to be successful.
- Although paper in its nature is biodegradable, there needs to be consideration of the total cradle to cradle cycle. Plastic requires less energy consumption to produce, has less environmental impact in the manufacture of the ultimate packaging and is less expensive to recycle.  
Source: [www.EPA.gov](http://www.EPA.gov)
  - o Plastic takes 50% less energy to produce than paper
  - o Plastic requires only 2% of the energy needed to recycle paper
  - o When incinerated plastic yields more energy than coal and burns cleaner
  - o 80% of consumers reuse plastic bags in some way or fashion
  - o 180 million to 258 million tons of plastic will be used per year by 2010. 1.5 to 4.8% of that will be bioplastics. Source: Frost and Sullivan
  - o There are 3200 yard trimmings composting facilities in the US
  - o Plastics comprise only 9% of the US Petroleum consumption
  - o US recycling recycles <6% of all plastic used. (We need to do better)
- Alternatives to biodegradable plastic bags are available. One for instance is oxy-degradation, which accelerates the degradation of polyethylene through fragmentation when one of three elements are present; oxygen, heat or UV. Pak-Sher® recommends either oxy-degradation or reusable packaging at this time.
  - o The problem with biodegradable packaging is that unless there is a significant industrial composting infrastructure to support collection and processing the packaging may end up doing more harm by contaminating the normal plastics collection waste stream.
- Make sure that when promoting "Green" packaging there is sufficient labeling to instruct the consumer on how to properly dispose of the package. If not, you are not meeting the environmental goal that the product initially intended to address.
- Education is needed on how to pack out a bag. Make sure you utilize the full capacity of the bag.



MADE WITH 35% OR MORE  
RECYCLED CONTENT



#6822 EPI SW 19"

MADE WITH AN **EPI ADDITIVE**  
TO ACCELERATE THE DEGRADATION PROCESS

EPI®, when added in small quantities to resins during the manufacturing process, causes the plastic to degrade at a controlled rate. The degradation, which involves the reaction of the plastic with oxygen in the air, is initiated by exposure to ultraviolet light (sunlight), elevated temperatures and/or mechanical stress. Bags which incorporate the EPI® additive have similar physical properties and are indistinguishable in look and performance from traditional bags prior to the onset of degradation.

- The blend of Recycled Content and EPI® additive helps reduce waste and will assist in the reduction of greenhouse gases.
- Proven to degrade/fragment in a landfill environment, ultimately taking up less landfill space.
- Reduces the appearance of litter through the process of fragmentation.

Item #	Description	Dimensions	Film	Print	Case Pack	Cube	Weight	T/Hi
#6822	EPI SW 19"	19" x 19" x 9.5"	White HDPE with 35% or more recycled content and EPI additive	Stock	500	0.54	15.66	8x10

This product has a shelf life of 12 months before the degradation process begins. All cases are labeled with a shelf life expiration date.



# Pak-Sher's CAPABILITIES

Products are designed to closely match the application, which saves materials and reduces waste.

Bags are printed using water-based inks, which contain no heavy metals.

Pak-Sher is certified by "Operation Clean Sweep", which certifies that we have proper resin containment as to not contaminate runoff water and waterways.

Pak-Sher is a member of the Institute of Professional Packaging (IOPP) Sustainable Task Force, Society of the Plastics Industry (SPI), Recycling Alliance of Texas, a division of the National Recycling Alliance, and other related organizations.

## PCR - POST CONSUMER RECLAIM

- Product with > 35% post consumer reclaim content.
- Meets the "Green Restaurant Associations" requirements.
- Cost effective
- Reduces use of fossil fuel resins  
(Be aware that products made using PCR content do not meet FDA 21 CFR requirements for direct food contact)

### *Original Wave® Bags (wave-top carry-out bag)*

Design promotes minimal waste  
Shape reduces material usage

### *Drink Carriers (domestically produced only)*

Design reduces material usage over pulp trays  
Moisture resistant

### *Reuse-a-Tote™ (bottom gusset soft loop handle bags)*

Meets requirements of San Francisco plastic bag ordinance

## REUSABLE

- Bags made for multiple uses before disposal.
- Products designed in heavier gauges and from materials that provide a more sturdy multi-use construction.
- Alternative to more expensive rope handle paper bags, cloth or woven PP bags.

### *Original Wave® Bags (wave-top carry-out bag)*

Design promotes minimal waste  
Heavier gauge to enhance reusable functionality

### *Reuse-a-Tote™ (bottom gusset soft loop handle bags)*

Meets requirements of San Francisco plastic bag ordinance





## DEGRADABLE

- Products that contain a degradable additive from EPI®.
- Uses oxy-fragmentation to accelerate degradation.
- Cost effective - additive is required at low percentages (1-10%)
- Will degrade in commercial landfill within 12 months.
- Is recyclable in normal plastic waste streams.
- Meets FDA 21 CFR requirements for direct food contact.

*Original Wave® Bags* (wave-top carry-out bag)

Design promotes minimal waste  
Shape reduces material usage

*Drink Carriers* (domestically produced only)

Design reduces material usage over pulp trays  
Moisture resistant

*Reuse-a-Tote™* (bottom gusset soft loop handle bags)

Meets requirements of San Francisco plastic bag ordinance

*Quicksheets®* (interfolded pop-up sheets)

Moisture resistant without the need for coating such as wax or polyethylene, which paper requires.

*Bakery Bags* (domestically produced only)

## BIODEGRADABLE

- Products made from materials such as PLA and or Copolyester.
- Degrades back to carbon and water.  
Is compostable.
- Is not recyclable in normal plastic waste streams.  
Reduces or eliminates the use of fossil fuel resins.  
All or part of the resins are made from renewable resources.  
Meets FDA requirements for direct food contact.

*Quicksheets®* - Made with PLA material

*Original Wave® Bags, Drink Carriers, Bakery Bags and Reuse-a-Tote™* -

In the process of conducting material trials, expected date for these products is mid 2008.



**PAK-SHER®**

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# what is **GREEN?**

An all encompassing term that identifies environmentally friendly packaging, processes, disposal methods, etc.

**SUSTAINABILITY** – Packaging that it is beneficial, safe and healthy for individuals and communities throughout it's life cycle; is sourced, manufactured, transported and recycled using renewable energy; and maximizes the use of renewable or recycled source materials. No packaging is truly sustainable.

**BIODEGRADABLE** – Capable of decomposing rapidly by microorganisms under natural conditions (aerobic and/or anaerobic). Meets ASTM 6400 criteria for degradability.

**DEGRADABLE** – All things are degradable given time. The actual timeframe in which this degradation takes place is determined by industry standards.

**ENVIRONMENTAL PACKAGING**  
– Any packaging that reduces it's environmental footprint.

**OXY-DEGRADABLE** – The process where the oxygen level is increased to accelerate the fragmentation process.

**RENEWABLE** – A resource that can be renewed or recreated in one growing cycle.

**RECYCLABLE** – Any package that is able to be reworked into its original form once put into use.

**PCR** – Post Consumer Reclaim (Does not meet FDA guidelines for direct food contact)

**COMPOSTABLE** – A package that is able to be introduced in to a normal industrial composting waste stream and meets ASTM 6400 criteria for biodegradability.

**REUSABLE** - Any package that is of sufficient structure to be used multiple times. The amount of reusability required will be clarified for each package.



**PAK-SHER**  
[www.paksher.com](http://www.paksher.com)