



Presentation for



March 8, 2012



The Technology Leader in Recycled Polyolefin Resins



The only FDA approved,
food grade HDPE PCR
in North America



High speed, high output,
custom color sorted HDPE PCR.
Don't just recycle the plastic,
recycle the color.

About Envision Plastics

Mission

> **Mission Statement**

- *To be North America's leading supplier of recycled resins by providing our customers with innovative products and superior solutions that help them achieve their environmental and sustainability goals, while endowing the Envision family with outstanding returns on its relationships.*

> Envision Plastics is a recognized industry leader in post consumer recycled polyolefin resins.

> This leading position has been built by superior product quality and value-added product offerings that elevates Envision's customer mix from the industry norm for recycled plastics companies

> Envision will continue to build upon this leadership position by:

- Expanding leadership in the recycling of color through its proprietary PRISMA™ technology
- Commercializing its patented EcoPrime™ FDA and fragrance free technology

> Providing Envision with a premier portfolio of customers

About Envision Plastics

History

- > Started in June 2001 by entrepreneurs, Massoud Rad and Parham Yedidsion
- > Bought FCR's Plastics Recycling business in Reidsville, NC, from Casella Waste, and Union Carbide's Plastic Recycling business in Bound Brook, NJ
 - Combined these two businesses in Reidsville, NC.
 - Upgraded and expanded the Reidsville FCR plant and integrated the Union Carbide equipment
- > Bought a USPL plant in Chino, CA and converted it to HDPE plastic recycling
- > Envision is the only plastic recycler with national procurement and supply scope

About Envision Plastics

Expertise

- > Envision has enlisted industry experts from the plastics recycling industry to manage their operations
 - Together there are more than 200 years of experience in the plastics industry among the management team of Envision
- > Envision can provide extensive technical assistance in utilizing recycled HDPE resins across a variety of plastics processing technologies
- > Envision is the industry leader in customer service
- > Envision has extensive laboratory and testing capabilities
 - Ensures highest quality products

Supply Assurance

Where Does Envision Get their Feed Stocks or Supply?

- > In an industry where supply of baled, curbside collected plastic is inelastic, Envision has purchasing scale and supplier relationships to support our current and future requirements
 - We have long term supply positions with MRF's across the country
 - Waste Management
 - Recommunity / Casella Waste
 - Allan Company
 - Greenstar
 - Allied / Republic
 - Other large MRF operators and municipalities
 - Some open bid suppliers



Process Cycle



Why Use Recycled Plastic in Your Packaging & Products?



Consumers Prefer Sustainable Solutions

- > 89% of interested “eco friendly” products and 30% actively look for them *Information Resources Inc. 2007*
- > More than 75% of US adults show some kind of green motivation. Natural Marketing Institute says that such a percentage makes sustainability a more attractive and imperative option for businesses to engage consumers
Food Navigator USA
- > 82% of Consumers Buying Green Despite Battered Economy
2009 National Green Buying research
- > Consumers may be more willing to ditch convenient packaging for greener packaging, while the food itself should include fresh ingredients and deliver health benefits
Ipsos Marketing July 09



Why Use Recycled Plastic in Your Packaging & Products?



Reduced Impact on the Planet

> Based upon producing 24MM pounds of EcoPrime™ annually (the output of only one production line) and supplying those pounds to food grade applications where recycled resins have not been used before, the use of EcoPrime™ will:

- Use 91.6% less energy to produce than virgin HDPE
- Reduce carbon emissions by over 6,805 metric tons
- Reduce carbon dioxide equivalents emissions by over 24,952 metric tons
- Reduce greenhouse gas emissions equivalent to removing 5,401 cars from the roads for one year
- Reduce energy consumption required to produce new resins by 771,876MM Btu's
- Save the equivalent of 6,222,417 gallons of gasoline annually

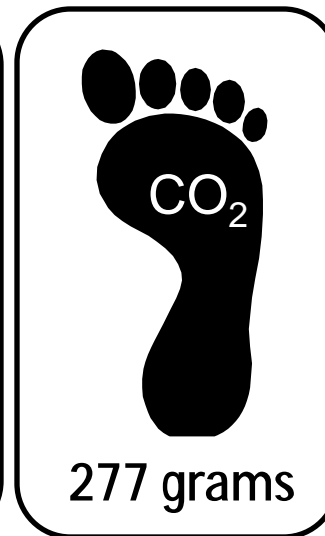
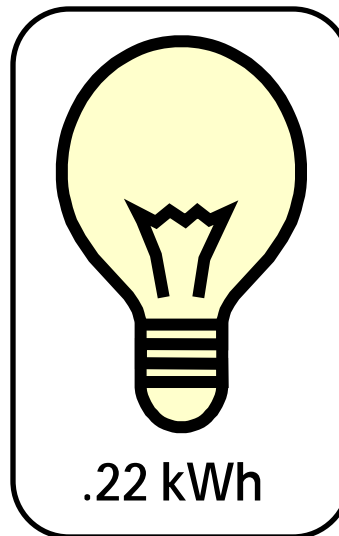


Source: U.S. Environmental Protection Agency – Recon tool

Environmental Impact

Resources Consumed to Produce One Pound of Recycled Resin

- > The production of recycled plastic resin uses far less resources than producing new, virgin plastic resin



- > Production of recycled resin uses 90% less energy and emits 78% less greenhouse gases than virgin
- > Moreover, recycling plastics creates 6 times more jobs than landfilling recyclables and 36 times more jobs than incinerating them

Reduced Impact on the Planet – Lower Carbon Footprint



Franklin Associates Life Cycle Analysis for Recycled HDPE

		Times Recycled	Allocation of Virgin %	Allocation of Virgin Energy in mm Btu	Incremental Recycle Energy	Total Energy in mm Btu	Total Energy % of Virgin	Energy Savings vs. Virgin
1								
2	Virgin HDPE					35.80	100%	0%
3	HDPE Cut off		100%		3.72	3.72	10%	90%
4	HDPE Open Loop	1	50.0%	17.90	1.86	19.76	55%	45%
5	HDPE Open Loop	2	25.0%	8.95	2.79	11.74	33%	67%
6	HDPE Open Loop	3	12.5%	4.48	3.26	7.73	22%	78%
7	HDPE Open Loop	4	6.3%	2.24	3.49	5.73	16%	84%

- > Association of Postconsumer Plastics Recyclers (APR) funded an LCI / LCA for plastics recycling
 - Results indicated that recycling HDPE used 10% of the energy required to produce an equivalent amount of virgin resin (cutoff method – no burden of original virgin resin production energy)
 - Results table above indicates energy savings for recycling HDPE based upon how many times you think the plastic will be recycled (open loop method – burdens recycled resin with a portion of the energy use to produce the virgin HDPE resin)



Products



Broadest Product Line of Recycled Polyolefins

- > Envision has the broadest range of post consumer HDPE resin products in North America
 - Low cost General Purpose PCR
 - Custom color sorted PRISMA™ PCR
 - EcoPrime™ FDA approved food grade PCR
 - Fragrance Free PCR (fragrance volatiles removed from the PCR)



	General Purpose HDPE PCR			PRISMA	ECOPRIME (Pure as Prime HDPE Resin)		
Product	<i>Natural</i>	<i>Blend</i>	<i>Extended</i>	<i>PRISMA</i>	<i>FDA-FC</i>	<i>FDA</i>	<i>Fragrance Free</i>
Material	Homopolymer	Mixed Color PCR	Natural or Blend	Custom Color Sort	Homopolymer	Homopolymer	Blended or PRISMA
Markets	Personal Care, Household Products, Construction, Lawn & Garden	Personal Care, Household Products, Construction, Lawn & Garden	Automotive, Industrial, Construction, Lawn & Garden	All	Food & Beverage, Pharmaceutical, Nutritional, Health Care	Food Packaging (netting, bags, films, wraps)	Toys, Personal Care, Cosmetics
Uses	General Purpose, Color Sensitive	All Purpose	Less Demanding Applications	Color Dependent	Food Contact	Incidental Food Contact	Odor Sensitive or Requires Ultimate Cleaning

Customers and Companies that Use our Products



ESTÉE LAUDER



method.



AVEDA

L'ORÉAL

seventh GENERATION.

TRICORBRAUN

the power of options



Johnson & Johnson



klöckner pentaplast



ALPLA





Proudly announces...

sustainable. sensible. simple.



EcoPrime™

The only FDA approved, food grade,
post consumer recycled,
HDPE resin in North America

Available exclusively from...



Food Grade Natural Post Consumer Recycled HDPE

- > EcoPrime™ is North America's only recycled HDPE resin approved by the Food & Drug Administration (FDA) for food contact
 - FDA LNO #52, Jan. 16, 1998
- > Our EcoPrime™ post consumer resins are subjected to Envision's proprietary and patented (U.S. Patent #5,767,230) cleaning process that not only completely cleans the plastic, but removes any absorbed volatiles in the process, making EcoPrime™ as pure as prime resin
 - EcoPrime™ is considered to be safe for packaging use with any product that virgin HDPE is acceptable for, including:
 - juices, teas, coffee, soft drinks, milk, water, fruits, vegetables, condiments, dry foods, and many other applications
 - Personal & Beauty Care applications where Food Grade material is required or simply desired due to its exceptional cleanliness

FDA Vessel Process

Current Capacity of 24 Million Pounds per year



What Makes EcoPrime™ Food Grade?

- > EcoPrime™ is produced from curbside collected, natural, HDPE (#2) bottles.
 - Envision purchases bales of natural HDPE (#2) bottles from waste haulers and community MRF's
 - Envision further sorts the natural bales to remove non-food grade natural bottles from its recycling process
 - Envision grinds the bottles into flakes and then washes the flakes to remove labels and other contaminants from the plastic, providing a clean source of natural HDPE plastic flakes
 - Flakes are then color sorted to remove any residual colored caps and closures that have made it through the process thus far
 - Flakes are then melted in a large, vacuum vented extruder and pelletized



**Curbside Collected
Natural HDPE bottles**

What Makes EcoPrime™ Food Grade?

- > Envision then subjects the pellets to its patented process for removing, essentially, all volatiles and semi-volatiles from the pellets
- > The process consists of placing the pellets in a large silo like vessel and subjecting the pellets to high heat over a period of time
- > The pellets are stirred while continually passing hot air through the pellets
- > Volatiles and semi-volatiles that were absorbed by the plastic in its prior use, blooms to the surface of the pellets and is whisked away by vacuum
- > Envision's process provides ultra-clean material that exceeds the FDA's requirement for daily dietary contaminant intake of less than 0.5ppb
 - Equivalent to volatile and semi-volatile threshold of 320ppb or less



Customer Testimonial of EcoPrime™

- > From a R & D Packaging Director from a Global Beverage Company
 - “I just want to let you know that we have analyzed the high-L* natural color “Fragrance Free”, food grade EcoPrime™ sample that you sent me and we are very happy with the results. Our headspace analysis by GC/MS (Gas Chromatograph / Mass Spectrophotometer) suggests that this EcoPrime™ sample is as clean as virgin resin. You certainly have done a great job in making the EcoPrime™ product. Congratulations!”
- > An excerpt from this company’s executive summary of their testing stated the following:
 - “The rHDPE EcoPrime™ sample had the lowest levels of released volatiles of all samples tested, including the virgin HDPE. HDPE resin samples were analyzed for volatile compounds that could potentially migrate into finished products. Recycled resin samples with varying melt indices along with an EcoPrime™ rHPDE sample were compared. Results indicate that:
 - the rHDPE EcoPrime™ sample had the lowest number of individual compounds detected and the lowest levels of compounds amongst the rHDPE samples tested.
 - the virgin HDPE resin had a low number of individual compounds detected, yet had a high abundance of those compounds.”

Food Grade Natural Post Consumer Recycled HDPE

> Fragrance Free

- The EcoPrime[™] process removes all volatiles and semi-volatiles from the material that may impart unwanted scents or fragrances.
- Since all unwanted fragrances are removed EcoPrime[™] smells like prime HDPE resin
 - This is a significant advantage in high content applications and where the flavor of foods and the fragrance of beauty and personal care products must be protected

> Customers must conduct their own organoleptic, stability and other tests with EcoPrime[™] to ensure its suitability and safety for uses with their products

- 20 major food and personal care companies have EcoPrime[™] under test at this time



Commercial Considerations



Early Adoption Advantages

- > Since the use of EcoPrime™ breaks new ground in the use of recycled resins, there is the unique opportunity for early adopters who contractually commit to a portion of our productive capacity
 - Exclusivities for certain market niches
 - Exclusivities for specified geographic regions
- > EcoPrime's™ uniqueness also provides for co-branding and co-marketing opportunities
 - Currently in the process of developing a community around the users of EcoPrime™
 - EcoPrime™ logo identifies products as having the cleanest, safest, purest and FDA approved recycled content

What's Next?

- > First production line is fully operational in Reidsville, NC
 - Capable of producing 24,000,000 pounds of material per year
- > Ordering second system for installation in Southern California
 - Expected to be production ready during 1st half of 2012
- > Future expansion in Reidsville expected later in 2012
- > In the Research & Development phase of producing a food grade Polypropylene post consumer recycled resin



Custom Color Sorted PCR

- > PRISMA™ is custom color sorted, recycled HDPE resin
- > PRISMA™ is produced from curbside collected, mixed color, HDPE (#2) bottles.
 - Envision purchases bales of mixed color HDPE (#2) bottles from waste haulers and community MRF's. Envision grinds the bottles in flakes and then washes the flakes to remove labels and other contaminants from the plastic, providing a clean source of many different colors of HDPE plastic.
- > Envision utilizes its proprietary high speed sorting technology to separate the colored flakes into separate streams of colored flakes
 - Envision's sorters are able to recognize 40 million different shades of colors at a speed of more than 1 million flakes per minute
 - This enables Envision to recycle not only the plastic, but the colors as well, providing our customers with a custom color matched PCR for their products

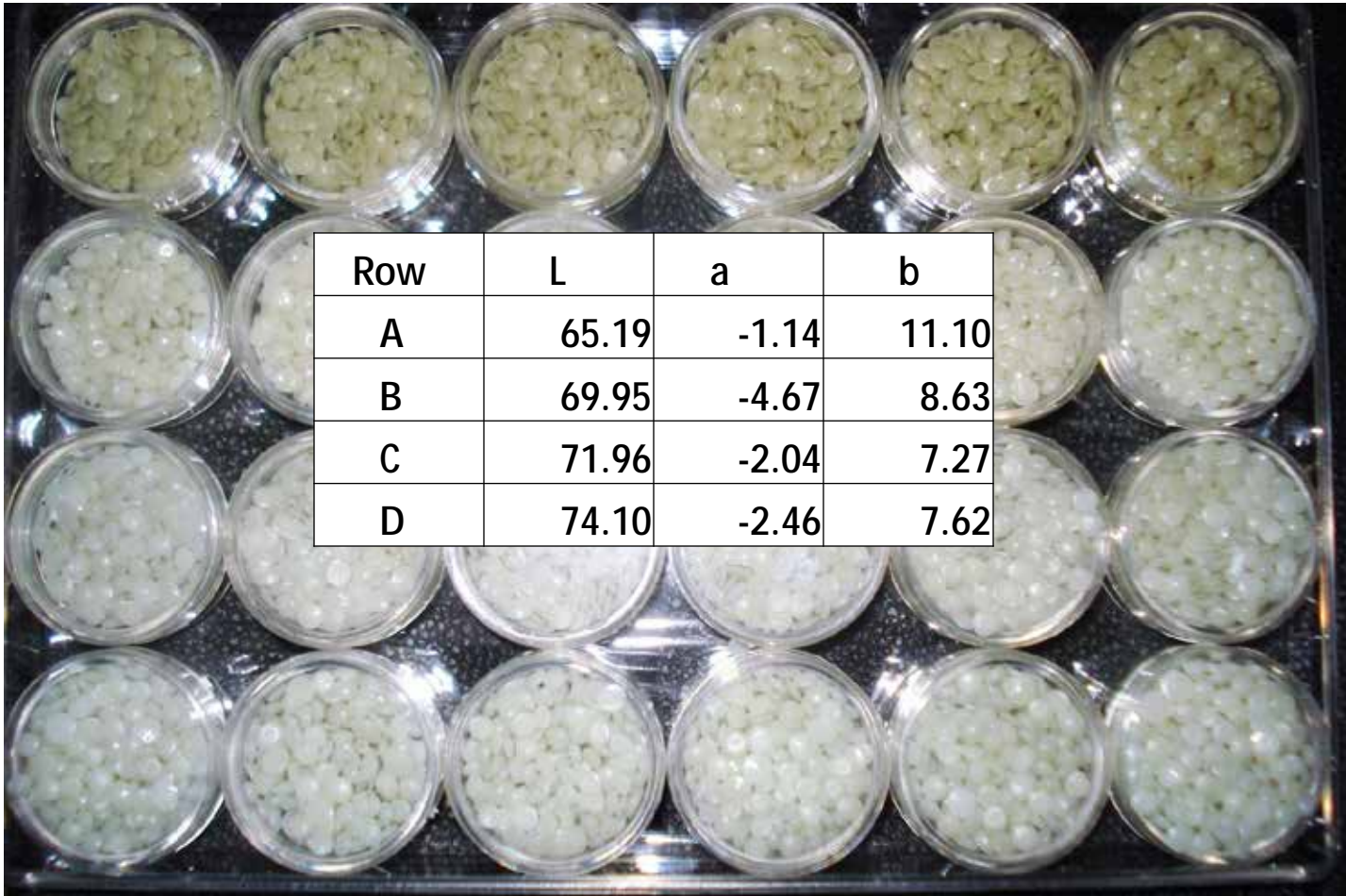
Custom Color Sorted PCR

- > Colorants cost per pound is one of the most expensive components in a plastic package or product
- > By being able to recycle the colorant, as well as the plastic, our customers are able to save money by not buying as much new colorant when they produce new plastic products
- > Savings will vary depending upon how much PRISMA™ PCR is used in the process of making a plastic item
- > Savings realized may also vary by the process employed
- > In most cases, though, colorant savings should be proportional to the amount of PCR used in the item
 - > If 25% PRISMA™ PCR is used, colorant savings should be 25%. If 50% PRISMA™ PCR is used, colorant savings should be 50%



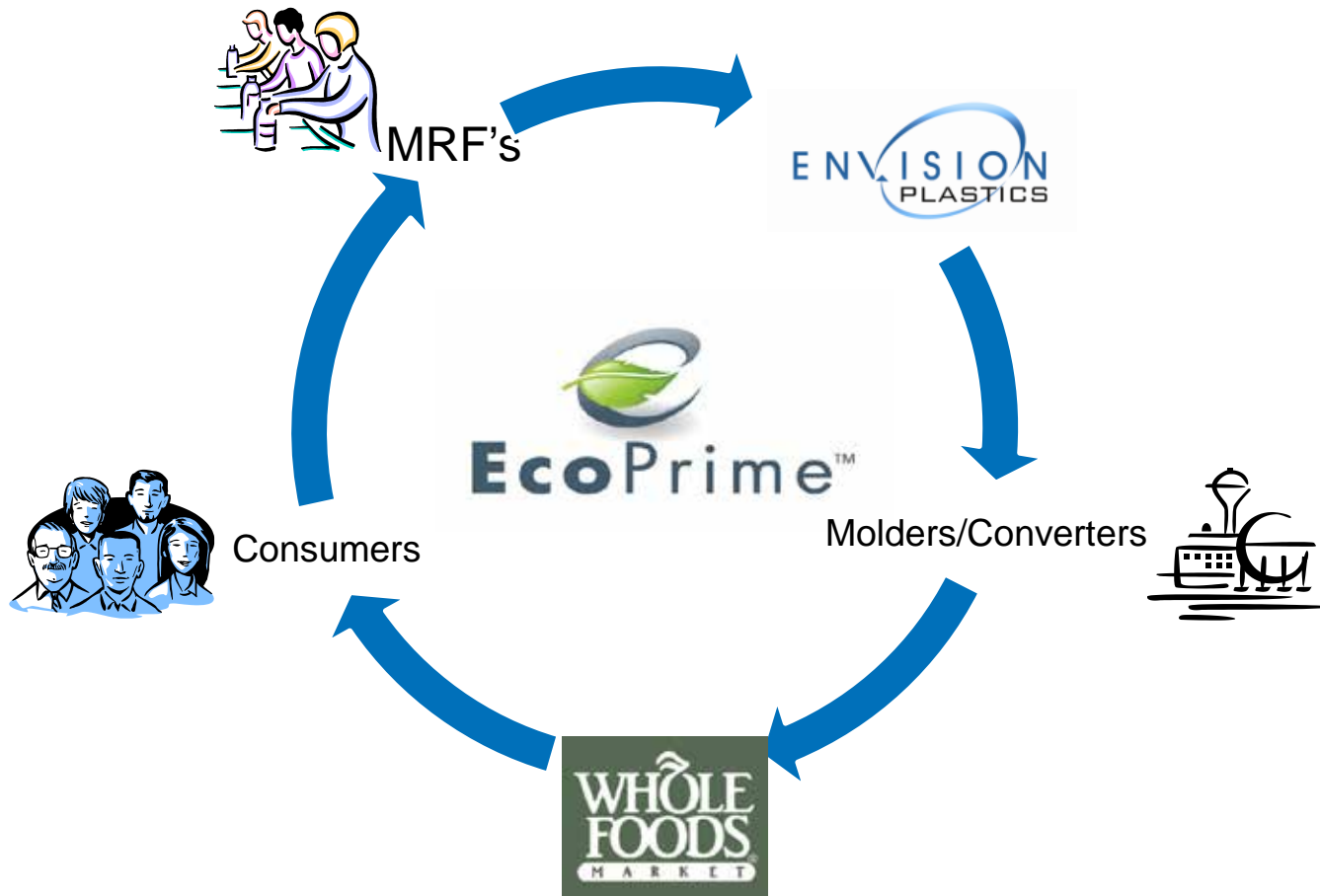
Containers that use PRISMA™ custom color sorted PCR

Proprietary PRISMA™ Sortation Technology Provides a Much Brighter, Cleaner Looking of Natural Material



Closing the Loop

Virtuous Circle of Recovery, Recycling and Reuse



Why Use Recycled Plastic in Your Packaging & Products?



It's the Right Thing to Do


> Recycling Plastics

- Conserves energy
- Conserves natural resources
- Reduces greenhouse gas emissions
- Saves space in landfills
- Creates new jobs
- Preserves our environment

> Learn more about plastics recycling @

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