



Natural Plastic for a Sustainable Future



Presidential Green Chemistry Award
Environmental Protection Agency



ICIS Innovation Award
Best Environmental Solution



GPEC Environmental Award
Society of Plastics Engineers

METABOLIX 
where nature performs®

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METABOLIX 
where nature performs®

and


ADM
RESOURCEFUL BY NATURE™

Made by Nature

Natural Plastic answers the need for a renewable alternative to petroleum-based plastics. We now have developed an environmentally sustainable process to make the plastic materials so essential to our quality of life.

The revolutionary patent-protected processes used to produce *Natural Plastic* are truly innovative.

Natural Plastic is:

- **Totally Biobased**
— Made from renewable resource, corn.
- **Uncompromising in Performance**
— Like today's plastics
- **Totally Sustainable**
— Reduces greenhouse gases

Metabolix has teamed with Archer Daniels Midland (ADM) as a strategic partner to commercialize earth-friendly *Natural Plastic*. The first commercial plant will be in Clinton, Iowa, and startup is planned for 2008. ADM is one of the largest agribusinesses in the world. Their extensive capability enables commercial availability of *Natural Plastic* globally. Metabolix is now working with select customers to prototype and develop applications.



RESOURCEFUL BY NATURE™

Uncompromising Performance

Metabolix/ADM *Natural Plastic* is the cleanest and greenest solution. It is the only fully biodegradable and fully sustainable high performance plastic available. It has the physical characteristics of petroleum-based plastics but comes from nature and will return to nature at the end of its useful life.

Natural Plastic:

- Can replicate the performance of a broad range of traditional plastics
- Has excellent heat resistance
- Delivers major environmental benefits.

Powerfully Green



Wide Variety of Applications

Natural Plastic is especially suited for many applications.

Their uses include:

- Consumer disposables
- Cups and lids
- Packaging film
- Bags
- Caps and closures
- Utensils and housewares
- Erosion control and agricultural films

To meet the needs of this wide array of applications, we have developed a broad range of grades for injection molding and extrusion (paper coating, film and sheet). We can formulate grades based on specific application needs and requirements.

Natural Plastic can be processed on conventional conversion equipment.

Return to Nature

Natural Plastic is compliant with ASTM D 6400 and its European counterpart EN 13432 for hot composting. *Natural Plastic* will also totally decompose in:

- Compost: home and industrial
- Soil
- Municipal waste treatment, septic
- **Even wetlands, streams, and oceans**

Natural Plastic is the cleanest and greenest solution. It starts with nature and returns to nature.

One mil film on paper substrate significantly degraded after 49 days and was completely gone in 60 days, leaving a pristine environment as depicted below.



Back to Nature

Left hand photo shows bottles degrading in soil over time. Right photo shows a plant pot degraded in soil after two months. Only the lip which was above ground is left. It will eventually degrade as well.

