Artech GREEN Plastic - Environmental Statement

June 2008

In today's "green environment", it's not always easy to get reliable, simple and clear information. Corporations need the correct facts to evaluate a supplier's claims. **This document presents simple, clear and reliable information**.

What Makes a Plastic Eco-friendly?

Most plastic products today are printed on PVC plastic (polyvinylchloride) and then laminated with a PVC film. the Artech GREEN Plastic is not a PVC plastic! It is a unique agri-based (non-petroleum) polymer made from renewable, bio-based materials such as corn, soy, wheat, potatoes and tapioca. The material is especially designed for the graphic arts industry and is manufactured in a plant utilizing renewable energy. **This plastic is certified "compostable" by the Biodegradable Products Institute (BPI) as per ASTM D-6400, the most widely recognized test for compostability currently in use. The material is also biodegradable and recyclable (code #7).**

Degradable - Biodegradable: What is the difference?

Many of the newer "environmentally friendly" plastic stocks are degradable, but not biodegradable! In their purest form, the plastics are biodegradable but they are too brittle and difficult to work with. Additives are mixed in to give a white sheet and modify the physical properties. The materials become workable but are no longer considered biodegradable. It can still be sold as a product made from renewable resources, but it will not biodegrade! What is the difference? Degradable means that if the plastic is placed into a commercial composting facility the plastic will degrade into millions of molecules of plastic. The plastic does not decompose! Conversely, a biodegradable plastic, like **the Artech GREEN plastic, is biodegradable and will decompose into its basic organic elements (within 180 days as per ASTM D6400).**

To Laminate, or Not to Laminate . . . that is the question!

Most plastic products on the market are laminated with PVC and have a high level of gloss. The lamination will not biodegrade and actually creates a barrier to the natural process of biodegradability. Adding a laminate defeats the purpose of having a biodegradable card. **We do not recommend laminating a Artech GREEN Plastic.**

The Inks

We use 100% vegetable based inks for our Artech GREEN Plastic for high volume runs. Vegetable based inks have been around for many years and are **100% biodegradable**. Press varnishes are also biodegradable. Digital inks and varnish are used for short and medium runs, which are not biodegradable. But it represents such a small portion of the mass that we believe this is a non-issue.

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Artech GREEN Plastic used in card production

Card thickness:

The plastic we use is stiffer than most other plastics. This means that you can use a 25 mil sheet instead of a 30 mil sheet when you need a magnetic stripe. It works just as well but requires **16.6% less materials** to produce the card. The lighter material also means a lower shipping cost. That's environmentally friendly!

The "Look"

The surface of the card is matte and the colour is cream white. It prints very well and has very good ink holdout for excellent graphic reproduction. The addition of a biodegradable varnish greatly enhances and protects the image on the card without affecting its ability to biodegrade. The overall look and feel of the card is very "earth friendly".

Bar Codes and Magnetic Stripes

The amount of ink required to print variable information (bar codes, PIN's, account numbers, etc.) is so small that it does not affect the "biodegradability" of the card. We are still examining the biodegradability factor of the iron-based particles of a magnetic stripe, but they represent such a small portion of the card's mass that we believe this is a non-issue.

For more information about Artech Line please consult our web site at www.artechpro.com.