PACKAGING...SIMPLIFIED.

TECHNICAL BULLETIN

Status of Sustainable Packaging Development at PBi

Definitions for "Sustainable" Packaging vary. PBi presents the following paraphrase of the various definitions that exist today.

The Ultimate Goals of a Sustainable Package

- A package that is safe for consumer use and results in zero unsafe pollutants being introduced into the earth, water, or air.
- A package that results in zero net loss of any one of the earth's non-renewable resources from the time the first raw material is produced to the time of its last use and disposal.
- A package that, after its use and disposal, returns relatively quickly to safe, natural components ("quickly" meaning years as opposed to generations)
- A package that provides some benefit to people (e.g. un-spoiled food, an enjoyable experience, etc.) and can be sold in current market conditions.

These are ambitious, but good goals that PBi believes are worth pursuing for business and personal reasons.

What Steps Are We Taking Today?

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1. We are committed to providing Sustainable Packaging to our customers. We are currently devoting resources to our own development as well as monitoring the packaging industry worldwide for options. As soon as any real progress is made, PBi will offer it to its customers. In the meantime, the traditional packaging that PBi sells provides excellent barrier and performance while optimizing available resources and technologies. PBi's traditional packaging is relatively clean and efficient to produce, transport, and use compared to other existing material, e.g. paper. Worldwide, only 4-5% of annual petroleum usage is for plastics including all carpets, clothing, films, appliances, shapes, building materials, automobiles, gadgets, toys, *and packages.*

2. In 2008, PBi introduced a Compostable Natural Kraft Paper/PLA package into our stock line. This package can contain products and provide a grease barrier. The paper and the inner PLA liner decompose in a backyard compost pile in less than 30 days. The debate continues about PLA's ultimate sustainability, but PBi believes it is a step in the right direction based on the fact that it (1) is made from annually renewable resources, (2) uses 65 percent less fossil fuel and (3) contributes 65 percent less greenhouse gases to the atmosphere than traditional plastic materials. PLA can be disposed using traditional waste management methods or composted (note on composting: PLA's manufacturer recommends industrial composting, but PBi has found that the thin material we use in our bags will compost in a back yard compost pile).

3. At this time, we are one year into real-time compost-ability testing with an all "plastic," heat-sealable bag with some oxygen and moisture barrier. The material is a mixture of two films: 1) a biodegradable, renewable resource film, and 2) a biodegradable, petroleum-based seal layer. This package will not achieve the ultimate goal of sustainability as defined above, but it is a real, progressive step towards a sustainable package. Economic realities are that it will be about two times more expensive and have higher minimum quantities than current materials. This is a developmental effort, so if you are interested in this material, please contact us for a discussion about signing a Non-Disclosure Agreement.

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