



The Pieces of Zero Waste:
Compostable Bioplastics – Certification, labeling, and food service composting

Certification 101: BPI and ASTM 6400

City of Santa Monica Main Library
Santa Monica, California

May 13, 2009

ASTM - International



▶ American Society for Testing and Materials

- Voluntary standards development organization
 - Trusted source for technical standards for materials, products, systems, and services
 - Helps guide design, manufacturing, and trade in the global economy
- In existence over 100 years
 - Engineers and scientists worked together to address frequent breaks in railroad rails; standardized specs for the steel used in rail construction
- Today:
 - Addresses the standardization needs of the global marketplace
 - Standards developed at ASTM are the work of over 30,000 ASTM members; represent producers, users, consumers, government and academia from over 120 countries

ASTM Standards

▶ ASTM D6400

- Covers plastics and products made from plastics that are designed to be composted in municipal and industrial aerobic composting facilities i.e.: **Cutlery, Bags, Thermoform cups**
- Establishes the requirements for labeling of materials and products, including packaging made from plastics, as compostable in municipal and industrial composting facilities
- Determines if plastics and products made from plastics will compost satisfactorily, including biodegrading at a rate comparable to known compostable materials. Further, the properties in the specification are required to assure that the degradation of these materials will not diminish the value or utility of the compost resulting from the composting process.

ASTM Standards

▶ ASTM D6868

- Covers biodegradable plastics and products (including packaging), where plastic film or sheet is attached (either through lamination or extrusion directly onto the paper) to substrates and the entire product or package is designed to be composted in municipal and industrial aerobic composting facilities i.e.: Plates, Lined Cups
- Establishes the requirements for labeling of materials and products, including packaging, using coatings of biodegradable plastics, as compostable in municipal and industrial composting facilities
- Determines if products (including packaging) using plastic films or sheets will compost satisfactorily, including biodegrading at a rate comparable to known compostable materials. Further, the properties in the specification are required to assure that the degradation of these materials will not diminish the value or utility of the compost resulting from the composting process

BPI & USCC

▶ Biodegradable Products Institute (BPI)

- Multi-stakeholder association of key individuals and groups from government, industry and academia
- Promotes the use and recovery of compostable materials & organics via composting
- Steve Mojo – Executive Director; Clifton, New Jersey
- www.bpiworld.org



BPI & USCC

▶ US Composting Council (USCC)

- Voice of the composting industry in the United States
- Consists of compost producers and marketers, compost services and equipment vendors, technical consultants, public and regulatory officials
- Stu Buckner – Executive Director; Ronkonkoma, New York
- www.compostingcouncil.org



ASTM Standards & Composting

▶ For Food Service

- ASTM D6400 & ASTM D6868
 - ▶ Covers both plastics and paper/fiber applications
 - ▶ BPI's scientists check the data to verify that the products meet requirements in ASTM Specifications D6400 or D6868
- Products must
 - ▶ Disintegrate rapidly – testing: 12 weeks; practical application may be faster dependent upon composter's process; same as food & paper
 - ▶ Biodegrade quickly – testing: 180 days; practical application may be faster dependent upon composter's process; same as food & paper
 - ▶ Not harm the compost
 - ▶ Not contain high levels of regulated metals

BPI / USCC Certification

▶ Compostable Products Certification Program

- Designed to identify and certify plastic products that will biodegrade and compost satisfactorily in actively managed compost facilities
- Using ASTM D6400 & D6868, products are certified compostable in municipal and commercial composting sites
- Certifies plastic and paper products, which disintegrate and biodegrade completely and safely when composted in a municipal or commercial facility, like kraft paper, yard trimmings and food scraps
- Simplifies process for composters, consumers, regulators, local officials and others to identify plastic products that compost satisfactorily, leaving no toxic or persistent residues

BPI / USCC Certification

▶ Compostable Logo Program

- Compostable Logo is awarded to any products meeting ASTM D6400 or D6868, based on testing in approved independent laboratories
- Approved Products — Foodservice
 - ▶ This category includes manufacturers of foodservice items, such as plates, cups, bowls, fruit bowls, and other items used to serve meals. All are designed to disintegrate and biodegrade quickly and safely, when composted in a professionally managed facility. All approved products meet stringent, scientifically based specifications: ASTM D6400 or ASTM D6868.

