

Single Use Food Containers

Overview:

Re-usable food service containers such as ceramic plates and cups are always preferable, but when washing food service containers is not possible and use of disposable food service containers is unavoidable, compostable containers should be used. Where compostable single use containers are selected, a mechanism for composting should be in use.. As established in the specification for Solid Waste Recycling and Management Services, affected entities are encouraged to seek out and contract with waste management vendors who offer composting services.

Due to the tremendous amount of waste being generated from disposable food containers and the costs for its disposal, cafeterias and food service operations are beginning to convert to more environmentally friendly food service containers. This transition has become more complicated and complex than expected due to various forms of food service container options that are available. In order to significantly reduce the amount of waste generated from these materials, food service operations need to determine what food service container and its associated packaging best suits the needs of their customers while creating the least environmental impact.

Covered Products:

Single-use food service containers (plates, bowls, hot & cold cups with lids, food trays & hinged containers).

Definitions:

Bio-based Materials

Included (but not limited to):

- cellulose
- fiber crops such as hemp and flax
- bamboo and other grasses
- agricultural waste such as sugarcane (bagasse) and rice straw
- materials derived from agricultural products such as starch, lactic acid (PLA) and paper

Biodegradable

Degradable in which the degradation results from the action of naturally occurring microorganisms such as bacteria, fungi, and algae (no set time scale).

Bioplastic

Plastics derived from renewable bio-based sources, such as vegetable oil, corn starch, potato starch, or pea starch rather than traditional plastics derived from petroleum.

Compostable

Capable of undergoing biological decomposition in a compost facility as part of an available program, such that the material is not visually distinguishable and breaks down into carbon dioxide, water, inorganic compounds, and biomass suitable for use as a soil amendment, leaving no toxic residue (within a period of 180 days).

Polylactic acid (PLA)

A clear bioplastic that resembles common petrochemical-based plastics such as polyethylene and polypropylene.

Renewable

Derived from renewable agricultural and forestry resources.

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Sugar cane (bagasse)

Made of the pulpy material that remains after the extraction of sugar from sugarcane. Suitable replacement for Styrofoam.

Recyclable Material

Recyclable material is defined as a product that can be used as an ingredient in a manufacturing process to create another product.

Standard Setting:

ASTM International (American Society for Testing Materials) is one of the largest voluntary standards development organizations in the world—a trusted source for technical standards for materials, products, systems, and services. Known for their high technical quality and market relevancy, ASTM International standards have an important role in the information infrastructure that guides design, manufacturing and trade in the global economy

ASTM D6400-04 - Standard Specification for Compostable Plastics.

This specification is intended to establish the requirements for labeling of materials and products, including packaging made from plastics, as "compostable in municipal and industrial composting facilities."

The properties in this specification are those required to determine 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.

The following safety hazards caveat pertains to the test methods portion of this standard:

This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate health and safety practices and to determine the applicability of regulatory limitations prior to use.

ASTM D6868-03 - Standard Specification for Biodegradable Plastics Used as Coatings on Paper and Other Compostable Substrates

This specification establishes the requirements for labeling of materials and products (including packaging), wherein a biodegradable plastic film or coating is attached (either through lamination or extrusion directly onto the paper) to compostable substrates and the entire product or package is designed to be composted in municipal and industrial aerobic composting facilities. This specification, however, does not describe the contents of the product or their performance with regards to compostability or biodegradability. In order to compost satisfactorily, the product must demonstrate each of the three characteristics as follows: (1) proper disintegration during composting; (2) adequate level of inherent biodegradation; and (3) no adverse impacts on the ability of composts to support plant growth.

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This specification 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.

This specification is intended to establish the requirements for labeling of materials and products, including packaging, using coatings of biodegradable plastics, as "compostable in municipal and industrial composting facilities."

The properties in this specification are those required to determine 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.

This coating standard does not describe contents or their performance with regard to compostability or biodegradability.

The following safety hazards caveat pertains to the test methods portion of this standard: This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate health and safety practices and to determine the applicability of regulatory limitations prior to use.

Biodegradable Products Institute (BPI) is a professional membership association of key individuals and groups from government, industry and academia, which promotes the use, and recycling of biodegradable polymeric materials (via composting). The BPI is open to any materials and products that demonstrate (via scientifically proven techniques) that their products are completely biodegradable in approved composting facilities.

Specifications:

Where such products are cost competitive; meet form, function and utility requirements; and will be managed in a municipal or commercial composting program, all single use food containers excluding hot and cold cups, hot containers and lids (hot and cold), shall, to the maximum extent practicable be compostable as defined under the ASTM Standard Specification for Compostable Plastics (D6400-04). When coatings are used they shall be compostable as defined under the ASTM Standard Specification for Compostable Plastics Used as Coatings on Paper and Other Compostable Substrates (D6868-03) or, if such standard is not applicable, be biodegradable.

Affected entities are encouraged to purchase compostable single use food containers that are certified by the Biodegradable Products Institute (BPI).

The hot and cold cups, hot containers and lids (hot and cold) shall meet one of the following:

- Shall be manufactured from a bio-based material that is compostable and biodegradable; or
- Shall be manufactured from a polymeric material (plastics/resins) that contain a minimum of 30% post consumer recycled content unless wherein recycled content is not allowed by the United States Food and Drug Administration (USFDA); or

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- Shall be recyclable through a local municipal recycling program or through a commercial establishment that is willing to accept the material for recycling; and shall be labeled with a visually legible Resin Identification Code.

NOTE: If a biobased container is manufactured with a polyethylene coated material, it is not compostable, and therefore does not meet the intent of this specification. However, if purchased, each container shall be marked to indicate it is not compostable, biodegradable or recyclable.

All other products shall be:

- Compostable and biodegradable, use of Active Organic Enzyme (AOE) (solvents) for biodegradability is not acceptable;
- Products made from bioplastic material shall meet the requirements of ASTM D6400-04 the standard specification for compostable plastics and labeled as Compostable and preferably be certified by the Biodegradable Products Institute (BPI).
- Products made with bioplastic coating shall meet the requirements of ASTM D6868-03 standard specification for biodegradable plastics used as coatings on paper and other compostable substrates; and shall be with a visually readable label as “Biodegradable” and/or “Compostable” and preferably be certified by the Biodegradable Products Institute (BPI);
- All paper products shall be manufactured entirely with chlorine-free processing. No chlorine or chlorine compounds shall be used in the manufacture of any paper products;
- All inks for printing and graphics shall be vegetable-based and approved for use by US FDA, where required.

Packaging

All packaging materials shall be made from reusable or recycled materials. All paper based packaging shall contain 30 percent postconsumer fiber by fiber weight. No foil or Mylar packaging or excessive inner packing shall be used

In accordance with Environmental Conservation Law section 37-0205, packaging shall not contain inks, dyes, pigments, adhesives, stabilizers, or any other additives to which any lead, cadmium, mercury or hexavalent chromium has been included as an element during manufacture or distribution in such a way that the sum of the concentrations levels of such lead, cadmium, mercury or hexavalent chromium exceed the following concentration level: 100 parts per million by weight (0.01%).