



THE MARK OF ENVIRONMENTAL RESPONSIBILITY

# **GS-35**

## **GREEN SEAL™ ENVIRONMENTAL STANDARD FOR FOOD SERVICE PACKAGING**

**FIRST EDITION  
PART A MARCH 15, 2000  
PART B MARCH 20, 2002**

Green Seal, Inc. • 1001 Connecticut Ave. NW, Ste 872 • Washington, DC USA 20036-5525  
(202) 872-6400 • FAX (202) 872-4324 • [www.greenseal.org](http://www.greenseal.org)

Green Seal's Environmental Standards are copyrighted to protect Green Seal's publication rights,  
not to restrict their use in product design or evaluation.

## **GREEN SEAL™**

Green Seal is a non-profit organization devoted to environmental standard setting, product certification, and public education. Green Seal's mission is to work towards environmental sustainability by identifying and promoting environmentally responsible products, purchasing, and production. Through its standard setting, certification and education programs, Green Seal:

- identifies products that are designed and manufactured in an environmentally responsible manner;
- offers scientific analyses to help consumers make educated purchasing decisions regarding environmental impacts;
- ensures consumers that any product bearing the Green Seal Certification Mark has earned the right to use it; and
- encourages manufacturers to develop new products that are significantly less damaging to the environment than their predecessors.

The intent of Green Seal's environmental requirements is to reduce, to the extent technologically and economically feasible, the environmental impacts associated with the manufacture, use and disposal of products. Set on a category-by-category basis, Environmental Standards focus on significant opportunities to reduce a product's environmental impact.

Green Seal offers certification to all products covered by its Standards. Manufacturers may submit their products for evaluation by Green Seal. Those which comply with Green Seal's requirements may be authorized to use the Green Seal Certification Mark on products and in product advertising. Manufacturers authorized to use the Green Seal Certification Mark on their product are subject to an ongoing program of testing, inspection, and enforcement.

For additional information on Green Seal or any of its programs, contact:

Green Seal  
1001 Connecticut Avenue, NW, Suite 827  
Washington, DC 20036-5525  
(202) 872-6400  
[www.greenseal.org](http://www.greenseal.org)

# **Environmental Standard for Food-Service Packaging (GS-35)**

## **Part A: Rigid Containers**

*First Edition, March 15, 2000*

Copyright © 2000 Green Seal, Inc.

### **1.0 Scope**

This recommended standard establishes environmental requirements for Food-service Food Packaging. The scope of this standard is for food-service food packaging, which includes single-use containers for packaging or carry-out of products from restaurants and other retail food service establishments. Part A of this standard is for rigid containers and includes hinged containers and two-part containers.

### **2.0 Definitions**

2.1 Compostable: Capable of undergoing biological decomposition in a compost site as part of an available program, such that the material (that is, feedstock) is not visually distinguishable and breaks down to carbon dioxide, water, inorganic compounds, and biomass, at a rate consistent with known compostable materials.

2.2 Recycled Content: A material that has been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (preconsumer), or after consumer use (post-consumer).

### **3.0 Need for Rigidity**

The manufacturer must provide to the distributor or user the following criteria describing when such packaging should be used: A rigid package that is moisture resistant under normal use conditions is necessary for liquid or semi-solid foods because other packages would not contain food sufficiently; or Rigidity is necessary to protect the structure of the food under normal handling and storage conditions, and consumer transit conditions.

### **4.0 Product-Specific Performance Requirements**

4.1 Grease Resistance: The package material must not permit grease to penetrate for a minimum of twenty minutes as tested with ISO 5634 Paper and Board - Determination of Grease Resistance.

4.2 Water and Moisture Resistance: The package material must not permit moisture or small amounts of water to penetrate for a minimum of twenty minutes as tested with modified ISO 5634 Paper and Board - Determination of Grease Resistance. The modification is described in Attachment A.

4.3 Compression Resistance: The package must have a strength to volume ratio of at least 1.0 g/cm<sup>3</sup> as tested using ASTM D 4577-94 Standard Test Method for Compression Resistance of a Container under Constant Load.

## **5.0 Product-Specific Health and Environmental Requirements**

5.1 Recycled Content: The package shall have a minimum recycled content of 45%. The manufacturer must demonstrate that any pre-consumer material used to meet the recycled content requirement would otherwise have entered the solid waste stream. All recycled materials used in the package must meet U.S. Food and Drug Administration regulations and standards for use of recycled materials in food packaging.

5.2 Wood Fiber: Any wood fiber, including paper fiber, used in the product shall not be bleached with chlorine or chlorine compounds (such as hypochlorite and chlorine dioxide). For post-consumer recycled fiber, this requirement applies to the recycling process and not to the original process of producing the fiber prior to first use by the consumer.

5.3 Volume-to-Weight: The package must have a minimum volume-to-weight ratio of 30.0 cm<sup>3</sup> per gram.

5.4 Compostability: The material shall be compostable in accordance with ASTM D6400, Standard Specification for Compostable Plastics.

5.5 Toxics in Packaging and Inks: Packaging must not contain inks, dyes, stabilizers, or any other additives to which any lead, cadmium, mercury, or hexavalent chromium has been intentionally introduced. The sum of the concentration levels of lead, cadmium, mercury, and hexavalent chromium present in any package or packaging component must not exceed 100 parts per million by weight.

## **Appendix A: Labeling Requirements for Certification by Green Seal**

Unless otherwise approved in writing by Green Seal, the following requirements shall apply:

1. The Green Seal Certification Mark may appear on the product.
2. Whenever the Green Seal Certification Mark appears, it shall be accompanied by a description of the basis of certification. This description shall be in a location, style, and typeface that are easily readable by the consumer. The description shall read as follows:

"This product meets the Green Seal™ standard for rigid food-service food packaging based on its recycled content, use of unbleached or nonchlorine bleached fiber (where wood or paper fiber is used), and compostability in centralized composting facilities where they are available. Whenever possible

non-rigid packaging is recommended over rigid to minimize the amount of waste produced and other environmental impacts."

3. In each bulk package of the product there should be a flier stating the conditions under which rigid packaging is needed and should be used. The flier should also contain information on proper disposal, with an emphasis on composting where facilities are available. Alternatively or in addition, a letter to the appropriate official in the user organization could describe the appropriate conditions for use and disposal.

# **Environmental Standard for Food-Service Packaging (GS-35)**

## **Part B: Single-Use Plates and Bowls**

*First Edition, March 22, 2002*

Copyright © 2002 Green Seal, Inc.

### **1.0 Scope**

This environmental standard establishes environmental requirements for single-use plates and bowls by quick-serve restaurants (QSRs), catering services, and other food service venues whether the food is to be eaten in the venue or taken to a different location (take-out). This standard includes typical single-se plates that are characterized by lips to prevent spillage and also includes compartmented plates, but excludes plate-type containers that have attached lids (e.g., hinges take-out containers). This standard includes soup-type bowls, but excludes clamshell-type containers that have attached lids.

### **2.0 Definitions**

2.1 Compostable: Capable of undergoing biological decomposition in a compost site as part of an available program, such that the material (that is, feedstock) is not visually distinguishable and breaks down to carbon dioxide, water, inorganic compounds, and biomass, at a rate consistent with known compostable materials.

2.2 Recycled Content: A material that has been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer).

### **3.0 Product Specific Performance Requirements**

3.1 Grease Resistance: The plate or bowl material must not permit grease to penetrate for a minimum of thirty minutes, as tested with ISO 5634 Paper and Board – Determination of Grease Resistance.

3.2 Water and Moisture Resistance: The plate or bowl material must not permit moisture or small amounts of water to penetrate for a minimum of thirty minutes, as tested with modified ISO 5634 Paper and Board – Determination of Grease Resistance. The modification is described in Attachment A.

### **4.0 Product-Specific Health and Environmental Requirements**

4.1 Recycled Content: The package shall have a minimum recycled content of 45%. The manufacturer must demonstrate that any pre-consumer material used to meet the recycled content requirement would otherwise have entered the solid waste stream. All recycled materials used in the package must meet U.S. Food and Drug Administration regulations and standards for use of recycled materials in food packaging.

4.2 Fiber Bleaching: Any fiber used in the product, including but not limited to wood, paper, bamboo, sugarcane, kenaf, and reed fiber, shall not be bleached with chlorine or chlorine compounds (such as hypochlorite and chlorine dioxide). For post-consumer recycled fiber, this requirement applies to the recycling process and not to the original process of producing the fiber prior to first use by the consumer.

4.3 Compostability: The material shall be compostable in accordance with ASTM D6400, Standard Specification for Compostable Plastics; CEN 13432 – Packaging – Requirements for Packaging Recoverable through Composting and Biodegradation – Test scheme and evaluation criteria for the final acceptance of packaging; or DIN V 54900 – Prüfung der Kompostierbarkeit von polymeren Werkstoffen (Testing and Compostability of Plastics).

4.4 Toxics in Packaging and Inks: Plates and bowls must not contain inks, dyes, stabilizers, or any other additives to which any lead, cadmium, mercury, or hexavalent chromium has been intentionally introduced. The sum of the concentration levels of lead, cadmium, mercury, and hexavalent chromium present in any plate and bowl must not exceed 100 parts per million by weight.

## **5.0 Labeling Requirements for Certification by Green Seal**

Unless otherwise approved in writing by Green Seal, the following requirements shall apply:

1. The Green Seal Certification Mark may appear on the product.
2. Whenever the Green Seal Certification Mark appears, it shall be accompanied by a description of the basis of certification. This description shall be in a location, style, and typeface that are easily readable by the consumer. The description shall read as follows:

“This product meets the Green Seal™ standard for single-use plates and bowls based on its recycled content, use of unbleached or non-chlorine bleached fiber (where wood, paper or other plant fiber is used), and compostability in centralized composting facilities where they are available.”

## **ATTACHMENT A**

### **Modification of ISO 5634: Paper and Board Grease Resistance:**

The test method presented in ISO 5634 should be followed to test for moisture resistance with the following modifications:

1. Replace standard grease with distilled/deionized water.
2. Replace the fat-soluble red dye with a water-soluble red dye.