



**GREEN SEALTM PROPOSED REVISED
ENVIRONMENTAL STANDARD FOR
REUSABLE BAGS (GS-16)**

October 13, 2008

THE MARK OF ENVIRONMENTAL RESPONSIBILITY

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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:

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APPENDIX A

FOREWORD

A. Certification. This Environmental Standard contains the basic requirements for certain products (as defined in the Scope section below) to be certified by Green Seal™ and for their manufacturers to receive authorization to use the Green Seal Certification Mark on products and their packaging, and in product advertising. The requirements are based on an assessment of the environmental impacts of product manufacture, use, and disposal and reflect information and advice obtained from industry, trade associations, users, government officials, environmental and other public interest organizations, and others with relevant expertise. These requirements are subject to revision as further experience and investigation may show is necessary or desirable.

B. Compliance with the Standard. Compliance with this Standard is one of the conditions of certification of a product by Green Seal.

C. Compliance with Government Rules. In order to be authorized to use the Green Seal Certification Mark, the manufacturer of the certified product must disclose all governmental allegations or determinations of violation of federal, state, or local environmental laws or regulations with respect to facilities in which the product is manufactured. Certification will be denied any product manufactured in violation of environmental laws or regulations if, in Green Seal's judgment, such violations indicate that the environmental impacts of the product significantly exceed those contemplated in the setting of the standard.

D. Limitations on Purpose of Standard. Green Seal's Standards provide basic criteria to promote environmental quality. Provisions for product safety have not been included in this Standard because government agencies and other national standard-setting organizations establish and enforce safety requirements.

E. Substantially Equivalent Products. Products that are substantially similar to those covered by this standard in terms of function and environmental impact may be evaluated and certified by Green Seal against the intent of the requirements of this standard.

F. Unanticipated Environmental Impacts. A product which complies with this Standard will not necessarily be certified by Green Seal if, when examined and tested, it is found to have other features which significantly increase its impact on the environment. In such a situation, Green Seal will ordinarily amend its standards to account for the unanticipated environmental impacts.

G. Certification Agreement and Green Seal Rules. In order to be authorized to apply the Green Seal Certification Mark to a product or its packaging, or to use the Green Seal Certification Mark in product advertising, the manufacturer of the product must (1) undergo an initial product evaluation to determine that the product complies with Green Seal's requirements, (2) sign a Green Seal Certification Agreement that, among other things, defines how and where the Green Seal may be used, (3) pay fees to cover the costs of testing and monitoring, (4) agree to an ongoing program of factory inspections and product testing, and (5) comply with the requirements found in the most recent version of "Rules Governing the Use of the Green Seal Certification Mark."

H. Disclaimer of Liability. Green Seal™, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. Green Seal shall not incur any obligations or liability for damages, including consequential damages, arising out of or in connection with the interpretation of, reliance upon, or any other use of this Standard.

I. Care in Testing. Many tests required by Green Seal's Standards involve safety considerations. Adequate safeguards for personnel and property should be employed in conducting such tests.

J. Referenced Standards. Standards referenced in this document may have been superseded by a later edition, and it is intended that the most recent edition of all referenced standards be used in determining compliance of a product with this standard.

K. Labeling Requirements. This standard neither modifies nor supersedes government labeling requirements. Labeling language which varies in form from the requirements of this section may be used with the written approval of Green Seal.

List of Acronyms

AATCC. American Association of Textile Chemists and Colorists.

CFR. Code of Federal Regulations.

CAN/CGSB. Government of Canada, Canadian General Standards Board.

EPA. United States Environmental Protection Agency.

FLO. Fairtrade Labeling Organization International.

GHS. Globally Harmonized System for Classification and Labeling of Chemicals.

GOTS. Global Organic Textile Standard.

IARC. International Agency for Research on Cancer.

IRIS. Integrated Risk Information System.

ISO. International Organization for Standardization.

IFOAM. International Federation of Organic Agricultural Movements.

NTP. National Toxicology Agency.

OSHA. Occupational Safety and Health Administration.

USDA. United States Department of Agriculture.

GREEN SEAL™ PROPOSED REVISED ENVIRONMENTAL STANDARD FOR REUSABLE BAGS (GS-16)

1.0 SCOPE

This standard establishes environmental requirements for any type of carrier or carryout bags that are designed and meant for hand-carrying a variety of goods or commodities multiple times. It includes any acceptable replacement of single-use bags such as grocery, retail or shopping bags, tote bags, produce and lunch bags, bank, security and deposit bags, postal bags and sacks, dry-cleaning, garment and laundry bags. The standard does not include food-contact bags such as sandwich bags or any bag or sack intended or anticipated to be disposed after single-use. The standard excludes bags made primarily of leather, synthetic leather or other material derived from animal skin.

2.0 DEFINITIONS

2.1 Carcinogens. Chemicals listed as a known, probable, reasonably anticipated, or possible human carcinogen by the IARC (Groups 1, 2A, and 2B), NTP (Groups 1 and 2), EPA IRIS (weight-of-evidence classifications A, B1, B2, C, carcinogenic, likely to be carcinogenic, and suggestive evidence of carcinogenicity or carcinogen potential), or by OSHA (as carcinogens under 29 CFR 1910.1003(a)(1)).

2.2 Colorfastness. Color from dyes or the raw material does not bleed when exposed to water or moisture or rubbing (crocking).

2.3 Color Component. A component added to the raw material of the product, such as a dye or pigment, whose only function is to change the product's color.

2.4 Mutagen. A chemical that meets the criteria for category 1, chemicals known to induce heritable mutations or to be regarded as if they induce heritable mutations in the germ cells of humans, under the GHS.

2.5 Natural Material. Material that comes from biological products or renewable materials, forestry or agricultural materials (including plant, animal, and marine materials), or minerals and that do not contain genetically modified organisms and have been processed without irradiation.

2.6 Optical Brightener. Additives designed to enhance the appearance of colors and whiteness in materials by absorbing ultraviolet radiation and emitting blue radiation. These compounds are also known as fluorescent whitening agents.

2.7 Ozone-Depleting Compound. A compound with an ozone-depletion potential greater than 0.01 (CFC 11=1) according to the EPA list of Class I and Class II Ozone-Depleting Substances.

2.6 Production and Processing. All levels of the production and fiber processing in creation of the product, including fiber breakdown, processing of the raw material, weaving, auxiliary processing, treatments and dyeing of the product. It does not include the growing or development of the raw material.

2.7 Post-Consumer Material. Material that would otherwise be destined for solid waste disposal, having completed its intended end-use and product life cycle. Post-consumer material does not include materials and by-products generated from, and commonly reused within, an original manufacturing and fabrication process.

2.8 Primary Package. Package that is the material physically containing and coming into contact with the product, not including shipping or transport packaging.

2.9 Raw Material of the Product. The fabric, fiber, textile or other material portion of the product that comprises at least 95% of the finished product by weight, but excludes minor accessories or additions such as fasteners, zippers, hooks or buttons.

2.10 Recyclable. The package can be collected in a substantial majority of communities, separated or recovered from the solid waste stream and used again, or reused in the manufacture or assembly of another package or product through an established recycling program.

2.11 Reinforcement. The act of providing additional support for textiles that can include stitch reinforcement such as double-stitching (secondary stitches that cover the same fabric as original stitches), reinforced sewing (a series of close set stitches in a zigzag pattern) or backstitching (stitches that are in the opposite direction of the original stitches), or other types of reinforcement such as additional material, rivets or other strengthening parts.

2.12 Reproductive Toxin. A chemical listed as a reproductive toxin (including developmental, female, and male toxins) by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (California Code of Regulations, Title 22, Division 2, Subdivision 1, Chapter 3, Sections 1200, et. Seq., also known as Proposition 65).

2.13 Synthetic Materials. Material derived from synthetic (man-made) materials or materials derived from any source (including natural materials) that are designed to mimic synthetic (man-made) materials in its final state.

2.14 Take-Back Program. The manufacturer or other third-party is responsible for the physical take-back of used or returned products. The program must be readily available to the end-user and the manufacturer or third-party cannot charge a fee for the services provided. The products that are accepted must be reused, repurposed or recycled as much as possible.

3.0 PRODUCT-SPECIFIC PERFORMANCE REQUIREMENTS

3.1 Minimum Number of Uses. The product shall have a minimum of 500 uses, carrying 10 kg (22 lbs), under wet conditions. An exception is made for products with a capacity equal to or less than 3000 g/cm³ which shall have a minimum of 500 uses carrying 2 kg (4.4 lbs), under wet conditions.

3.2 Reinforcement of Hand and Shoulder Straps. The hand and shoulder straps or intended handle shall be reinforced. For reusable utility bags that are closed by a closure such as a zipper, the zipper area shall be reinforced or designed such that the zipper and/or zipper slider can be replaced.

3.3 Colorfastness to Wet/Dry Crocking. The product shall have at least a level 2 or 3 for wet rubbing and at least level 4 for dry crocking using crockmeter method ISO 105 X12-2001 *Textiles – Tests for Color Fastness – Part X12: Color Fastness to Rubbing* or AATCC Method 8-2007 *Colorfastness to Crocking: AATCC Crockmeter Method* or Method 116-2005 *Colorfastness to Crocking: Rotary Vertical Crockmeter Method* or CAN/CGSB 4.2 *Textile Test Methods No 22-2004 Colourfastness to Rubbing (Croacking)*.

4.0 PRODUCT-SPECIFIC HEALTH AND ENVIRONMENTAL REQUIREMENTS

4.1 Raw Materials. Each raw material of the product or the combination of materials thereof shall fulfill one of the following three requirements:

4.1.1 Natural Materials. The raw material of the product shall be certified organic or conversion period certified by the USDA National Organic Program or certified by any IFOAM accredited or internationally recognised certifier, including certification under GOTS. If two or more natural materials are used, each raw material shall be certified organic or conversion period certified.

4.1.2 Synthetic Materials. The raw material of the product shall be recyclable, compostable or accepted as part of a manufacturer or other third-party take-back program. If two or more synthetic materials are used, the final combination of raw materials shall be recyclable,

compostable or accepted as part of a manufacturer or other third-party take-back program.

4.1.3 Post-consumer Materials. The raw material of the product shall be at least 95% post-consumer material content by weight of the finished product. If two or more post-consumer materials are used, the final combination of raw materials shall be at least 95% post-consumer material content by weight of the material in the finished product.

4.2 Production and Processing. The manufacturer may demonstrate production and processing compliance with certification under GOTS or certified under the Oeko-Tex 100 standard. In lieu of those certifications, the production and processing of the product shall not utilize any of the following:

- Alkyphenol ethoxylates
- Carcinogens, mutagens or reproductive toxins or any ingredients known to produce or release carcinogens, mutagens or reproductive toxins
- Ethylene diamine tetra acetic acid or any of its salts
- Halogenated organic solvents or chlorine-based compounds
- Heavy metals, including lead, mercury, cadmium, hexavalent chromium and antimony in the elemental form or compounds
- Linear alkybenzene sulfonates
- Optical Brighteners
- Ozone-depleting Compounds
- Phthalates
- Polyvinyl chloride

4.3 Insert or Liner. If the product is accompanied by an insert or bottom liner for support, the bottom liner shall be made of at least 95% post-consumer material by weight, be recyclable, compostable or accepted in a take-back program. The insert or bottom liner cannot prevent the bag from being recycled, composted or accepted in a take-back program. If intended disposal of the insert or bottom liner is different than the bag, instructions shall be provided for proper disposal.

4.4 Social Responsibility. The manufacturer may demonstrate compliance with the social responsibility criterion with certification under GOTS or certified to meet the Generic Producer Standard for Small Farms' Organization or Hired Labor Situations under FLO International. In lieu of those certifications, the production of the product shall meet the following social responsibility requirements:

4.3.1 Freedom of Association & Collective Bargaining. Workers shall have the right to join or form trade unions of their own choosing and their right to bargain collectively shall be recognized and respected.

4.3.2 Freedom of Labor. There shall not be forced or bonded labor or use of child labor.

4.3.3 Freedom from Discrimination. There shall not be discrimination in terms of race, color, sex, religion, age, disability, gender, marital status, sexual orientation, union membership, political opinion, national extraction or social origin such that it affects the opportunity or treatment in employment and there shall be no support or tolerance of corporal punishment, physical or verbal coercion, sexual or other harassment, intimidation or exploitation.

4.3.4 Occupational Health and Safety. A safe and hygienic workplace environment shall be provided with access to potable water. Adequate steps shall be taken to minimize the hazards of the workplace and workers shall receive health and safety training to prevent accidents and injury.

4.3.5 Conditions of Employment. Workers shall work under fair conditions of employment. Wages, working hours and overtime shall meet at a minimum the national legal or industry benchmark standard and regular employment shall be provided.

5.0 PACKAGING REQUIREMENTS

5.1 Primary Packaging. The product shall not be individually packaged or have any disposable primary packaging, excluding shipping or transport packaging.

6.0 LABELING REQUIREMENTS

6.1 Labeling of Product. The product shall include labeling requirements on the product itself or on a label or tag physically attached to the product.

6.2 Textile Identification Requirement. The product shall label fiber according to the Rules and Regulations under the Textile Fiber Products Identification Act 16 CFR Part 303, regardless of whether or not the product is legally required to under the regulation.

6.2 Consumer Education. The manufacturer shall provide the following information to the end-use consumer:

- Statement that the product is intended for reuse
- If applicable, labeling of organic content
- If applicable, instructions for recycling or take-back program for the reusable bag and insert or liner

6.3 Statement of Basis for Certification. Whenever the Green Seal certification mark appears whether on the product itself, product label or accompanying tag, the product shall contain a description of the basis for certification. The description shall be in a location, style, and typeface that are easily readable. Unless otherwise approved in writing by Green Seal, the description shall read as follows:

“This product meets the Green Seal™ environmental standard for reusable bags based on its reusability, raw material use, and environmental and socially responsible practices.”

APPENDIX A: Test Method for Minimum Number of Uses

The following is an example test method for measuring the minimum number of uses of a reusable bag. Other repeatable and reputable test method will be accepted if accompanied by proper documentation detailing the procedure, tools and measurements utilized.

Materials

-Motorized apparatus capable of lifting 10 kg (22 lbs) a distance of 20 cm (7.8 in) at least 500 times. The cycling apparatus includes any mechanism designed or with the ability to lift weight 500 times, with a hook or other connection device that suspends the product from the hand or shoulder straps.

-Combination of weighted material: granular materials (density of 1.2 g/cm³), steel balls, wood blocks, cans or other materials with a calibrated weight.

1. Immerse product completely in tap water for at least 5 minutes, air dry for 2 minutes
2. Attach both hand or shoulder straps to hook or other connection device, ensuring bag is open-size up
3. Fill product with granular material (density of 1.2 g/cm³), steel balls, wood blocks, cans or any combination that yields a minimum total of 10 kg (22 lbs)*
4. Using motorized apparatus, lift and lower the product 20 cm distance each cycle at a rate of 15 cycles/min for a minimum 500 cycles ensuring that the run time is at least 30 minutes, but not exceeding 120 minutes total.
5. Assess the product for damage including tears, holes, broken stitches, seam failures, localized distortion, disfigurement of markings. Any hole greater than 5 mm (0.2 in) in diameter, greater than 10% change in dimensional measurement from original measurement and/or partial or complete detachment of hand or shoulder straps is cause for failure.

*If the carrying capacity is <3000 g/cm³ the minimum total weight can be 2 kg (4.4 lbs)

To determine carrying capacity, measure 3000 g/cm³ with sawdust or other material (density 0.3 g/cm³) in a graduated container and transfer to the product, reporting if the product has a carrying capacity greater than or less than 3000 g/cm³. Alternatively, fill the product with sawdust or other material to full capacity and transfer to graduated container to report that full capacity is greater than or less than 3000 g/cm³.

References:

Environmental Choice Program Acceptance Test Procedure (ATP001)

Korea Eco-label Standard E312-2002/2/2005-68. Bags.