



**GS-43**

**GREEN SEAL™ ENVIRONMENTAL STANDARD FOR**

**RECYCLED-CONTENT AND  
LATEX PAINT**

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THE MARK OF ENVIRONMENTAL RESPONSIBILITY

## **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.

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## FOREWORD

**A. Certification.** This Environmental Standard contains the basic requirements for Recycled-Content Latex Paint (as defined in the Scope section) to be certified by Green Seal and for their manufacturers to receive authorization to use the Green Seal Certification Mark on products, on their packaging and in product advertising and promotion. The requirements are based on an assessment of the environmental impacts of product manufacture and use, and were developed with the guidance and input of a stakeholder committee consisting of manufacturers, users, government officials, academic and consulting experts, and environmentalists. The stakeholder committee was facilitated by the Product Stewardship Institute, Inc., as part of a wider national Paint Product Stewardship Initiative. The standard was reviewed and approved by consensus of the stakeholder committee, as defined by the International Organization for Standardization (ISO) and the Federal Government (Office of Management and Budget Circular A-119). It is therefore a consensus standard. This standard is subject to revision as further experience and investigation may show it is necessary or desirable. Green Seal solicits information and advice on issues associated with this standard.

**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 or criteria to account for the unanticipated environmental impacts.

**G. Certification Agreement and Green Seal Rules.** In order to be authorized to apply the Green Seal to a product or its packaging, or to use the Green Seal in product advertising or promotion, the manufacturer of the product must (1) sign a Green Seal Certification Agreement that, among other things, defines how and where the Green Seal may be used, (2) pay fees to cover the costs of evaluation and monitoring, (3) undergo an evaluation to determine that the product complies with Green Seal's requirements, (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.

## Green Seal<sup>™</sup> Environmental Standard for Recycled-Content Latex Paint (GS-43)

### 1.1 Scope

This Standard establishes environmental and performance requirements for recycled-content interior and exterior latex paint. For the purposes of this Standard, recycled-content latex paints are made by two distinct methods, consolidation and reprocessing (also called remanufacturing). This Standard does not apply to stains, clear finishes, paints sold in aerosol cans, or oil-based paints.

### 1.2 Definitions

*Aromatic Compounds.* Hydrocarbon compounds containing one or more 6-carbon benzene rings in the molecular structure.

*Consolidated Paints.* Paints that contain a minimum of 95% by volume post-consumer paint with a maximum of 5% by volume secondary industrial materials or virgin materials.

*Curdling.* The process of forming semisolid lumps in a liquid.

*Hard Settling of Pigment.* A settling of pigments that cannot be easily dispersed by simple mixing.

*Ingredient.* Any constituent of a product that is intentionally added or is known to be a contaminant that comprises at least 0.01% by weight of the product.

*Latex Paints.* Water-based paint containing latex binders.

*Livering.* Coagulation of paint into a viscous liver-like mass.

*Paints.* Liquid, liquefiable composition that is converted to a solid protective, decorative, or functional adherent film after application as a thin layer. These coatings are intended for, but not restricted to, on-site application to interior or exterior surfaces of residential, commercial, institutional or industrial buildings.

*Post-Consumer Material.* Finished products, packages or materials generated by a business or consumer that have served their intended end uses, and have been recovered from or otherwise diverted from the waste stream for the purpose of recycling.

*Putrefaction.* A state of decay usually accompanied by an offensive odor.

*Recyclable.* Characteristic of material that still has useful physical or chemical properties after serving its original purpose and can, therefore, be reused or remanufactured into additional products.

*Recycled Paints.* Consolidated or reprocessed paints containing post-consumer material, secondary industrial materials, and/or virgin materials.

*Reprocessed Paints.* Paints that contain a minimum of 50% by volume post-consumer paint, with a maximum of 50% by volume secondary industrial materials or virgin materials.

*Secondary Industrial Materials.* Products or by-products of the paint manufacturing process that are of known composition and have economic value but can no longer be used for their intended purpose.

*Skinning.* The formation of a dried layer on the surface of a fluid such as an ink or coating (like a paint), after a period of standing.

*Usable.* That which can be used for its intended purpose.

*Virgin Materials.* Materials that contain no post-consumer waste or secondary industrial materials.

*Volatile Organic Compounds (VOCs).* Compounds as defined by U.S. Environmental Protection Agency (EPA) in 40 CFR § 51.100 (s), (s) (1).

### **1.3 Collection and Sorting Requirements**

- 1.3.1 Paint shall be received in its original container with a readable label, which, at minimum indicates the product type (e.g., latex), its intended application (e.g., interior, exterior), and gloss level.
- 1.3.2 The contents of the paint shall visually match what is described on the label.
- 1.3.3 Solvent based paints or specialty paints (e.g., industrial, marine, automotive, traffic-marking, etc.) shall not be used for the purposes of manufacturing a consolidated or reprocessed latex paint. If there is any doubt that the paint is latex, then it shall be rejected.
- 1.3.4 To be determined usable for consolidation or reprocessing, each container of paint shall be free of the following as determined by a physical inspection that includes stirring of the contents to achieve uniform consistency:
  - A. Biological growth
  - B. Putrefaction
  - C. Skinning
  - D. Livering
  - E. Hard settling of the pigment
  - F. Significant interior and/or exterior corrosion of the container
  - G. Excessive debris, such as dirt, sand, gravel, sawdust, or similar foreign material
  - H. Curdling or other evidence of being frozen

- I. As indicated by the label, any heavy metals or substances prohibited in Section 1.5 of this Standard, their common names, CAS numbers and/or other common terminology.

1.3.5 Prior to canning, paints shall be filtered through a 300-micron or finer filter.

#### **1.4 Product-Specific Performance Requirements**

1.4.1 Documentation shall be provided demonstrating that the product meets the applicable Master Painters Institute (MPI) detailed performance standard for the appropriate MPI category.<sup>1</sup>

1.4.2 Every batch shall be tested by the manufacturer, at a minimum, for pH, viscosity, fineness of grind, and gloss.

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

##### *1.5.1 Chemical Components Limitations- VOCs*

1.5.1.1 The manufacturer shall demonstrate that the finished products contain a maximum VOC level of 250g/l as determined by the U.S. Environmental Protection Agency (EPA) Reference Test Method 24.

The calculation of VOC level shall not include water but shall include tinting color previously added.

Information shall be provided to justify the basis used to select the batch samples for VOC level testing. The selection of test samples shall reflect typical batch sizes, variation in recycled paint input, and total number of batches produced.

##### *1.5.2 Chemical Component Limitations- Aromatic Compounds*

1.5.2.1 The sum total of aromatic compounds in the virgin and secondary industrial materials of the product shall contain no more than 1.0% by weight. Testing for the concentration of these compounds shall be performed if they are determined to be present in the product during a materials audit.

##### *1.5.3 Chemical Component Restrictions*

1.5.3.1 The manufacturer shall demonstrate that the following chemical compounds are not used as ingredients in any virgin or secondary industrial materials added to recyclable latex paint in the consolidation or reprocessing of the product:

##### Halomethanes:

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<sup>1</sup> MPI detailed performance standards, which outline the applicable performance requirements and testing frequencies, may be obtained from the Master Painters Institute at <http://www.paintinfo.com/>

Methylene chloride  
Chlorinated ethanes:  
1,1,1, -trichloroethane  
Aromatic Compounds:  
benzene  
toluene (methylbenzene)  
ethylbenzene  
Chlorinated ethylenes:  
vinyl chloride  
Polynuclear aromatics:  
naphthalene  
Chlorobenzenes:  
1,2-dichlorobenzene  
Phthalate esters:  
di (2-ethylhexyl) phthalate  
butyl benzyl phthalate  
di-n-butyl phthalate  
di-n-octyl phthalate  
diethyl phthalate  
dimethyl phthalate  
Miscellaneous semi-volatile organics:  
isophorone  
Metals and their compounds:  
antimony  
cadmium  
hexavalent chromium  
lead  
mercury  
Preservatives (antifouling agents):  
formaldehyde  
Ketones:  
methyl ethyl ketone  
methyl isobutyl ketone  
Miscellaneous volatile organics:  
acrolein  
acrylonitrile

## **1.6 Product Packaging**

- 1.6.1 The manufacturer shall demonstrate that paint cans and their components are not fabricated with lead.
- 1.6.2 Recyclable product containers shall be used where local recycling opportunities exist.

## **1.7 Label and Material Safety Data Sheets (MSDSs)**

- 1.7.1 The packaging shall be accompanied by a brief statement discouraging improper disposal and encouraging consultation with local authorities for disposal requirements or recycling opportunities.
- 1.7.2 Unless otherwise approved in writing by Green Seal, the MSDS shall include the following statement:
- “This product consists primarily of post-consumer recyclable latex paints. Feedstock may vary.”
- 1.7.3 Unless otherwise approved in writing by Green Seal, the label shall include the following statement:
- “This product consists primarily of post-consumer recyclable latex paints.”
- 1.7.4 The manufacturer shall provide copies of relevant labels and MSDSs, which shall be prepared properly according to all applicable federal, state, and local regulations.

## **1.8 End-Of-Life Material Management**

- 1.8.1 Unused and unusable latex and non-latex paint shall be removed, utilized, and/or disposed of properly according to all applicable state, federal, and local regulations.
- 1.8.2 Leftover paint from the consolidation or remanufacturing process shall be utilized locally and/or domestically where there are existing markets.
- 1.8.3 Metal and plastic paint containers, pallets, and packaging shall be recycled where there are existing markets.

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

- A. The Green Seal Mark shall not be used in conjunction with any modifying terms, phrases, or graphic images that might mislead consumers as to the extent or nature of the certification.
- B. Whenever the certification mark appears on a package, the package 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, as applicable, read as follows:

“This product meets the Green Seal™ environmental Standard for *Consolidated* recycled-content latex paint based on its use of a minimum of 95% by volume post-consumer material and product performance.”

or

“This product meets the Green Seal™ environmental Standard for *Reprocessed* recycled-content latex paint based on its use of a minimum of 50% by volume post-consumer material and product performance.”