



GS-11

GREEN SEAL™ STANDARD FOR PAINTS AND COATINGS

EDITION 3.1
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THE MARK OF ENVIRONMENTAL RESPONSIBILITY

GREEN SEAL

Green Seal is a non-profit organization whose mission is to use science-based programs to empower consumers, purchasers, and companies to create a more sustainable world. Green Seal sets leadership standards that aim to reduce, to the extent technologically and economically feasible, the environmental, health, and social impacts throughout the life-cycle of products, services, and companies. The standards may be used for conformity assessment, purchaser specifications, and public education.

Green Seal offers certification of products, services, and companies in conformance with its standards. For additional information on Green Seal or any of its programs, contact:

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GREEN SEAL STANDARD FOR PAINTS AND COATINGS, GS-11

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FOREWORD

Edition. This version is Edition 3.1 from May 10, 2013 and replaces the Third Edition from January 1, 2010. This revision includes substantive changes.

General. The final issued standard was developed in an open and transparent process with stakeholder input that included producers, users, and general interests.

The requirements in the standard are based on an assessment of the environmental, health, or social impacts associated with the products, services, or organizations covered in the scope of the standard. These requirements are subject to revision, and generally cover aspects above and beyond regulatory compliance. This standard neither modifies nor supersedes laws and regulations. Any conformity assessment to this standard requires compliance with all applicable laws and regulations for the manufacturing and marketing of the products.

Provisions for safety have not been included in this standard, since they are supervised by regulatory agencies. Adequate safeguards for personnel and property should be employed for all stages of production, and for all tests that involve safety considerations.

Products, services, or organizations that are substantially similar to those covered by this standard in terms of function and life cycle considerations may be evaluated against the intent of the requirements of this standard, accounting for relevant differences between the intended scope of the Standard and the actual product, service, or organization to be evaluated.

This standard may not anticipate a feature of the product that may significantly, and undesirably, increase its impact on the environment, health, or society. In such a situation, Green Seal will ordinarily amend a standard to account for the unanticipated environmental, health, or societal impacts.

Normative references (e.g., other standards) in this standard intend to refer to the most recent edition of the normative reference. Test methods may be required for product evaluation. Unless explicitly stated that a specified method is the only acceptable one, the intent of the standard is that an equivalent test method may be accepted at Green Seal's sole discretion.

Certification to this standard shall be awarded only by Green Seal, or, with Green Seal's explicit written permission, by a third-party certification program conducting on-site audits.

Disclaimer of Liability. Green Seal, as the developer of this standard, shall not incur any obligations or liability for any loss or damages, including, without limitation, indirect, consequential, special, or incidental damages, arising out of or in connection with the interpretation or adoption of, reliance upon, or any other use of this Standard by any party. Green Seal makes no express or implied warranty of merchantability or fitness for a particular purpose, nor any other express or implied warranty with respect to this Standard.

ACRONYMS AND ABBREVIATIONS

ASTM. ASTM International, a standard setting organization formerly known as the American Society for Testing and Materials

DFT. Dry film thickness

EPA. U.S. Environmental Protection Agency

ISO. International Organization for Standardization

VOC. Volatile Organic Compound

GREEN SEAL STANDARD FOR PAINTS AND COATINGS, GS-11

1.0 SCOPE

This standard establishes requirements for *paints* and *coatings*. The standard includes wall, *anti-corrosive*, and reflective *coatings*, *floor paints* and *primers* and *undercoats*. The standard does not include stains¹, clear finishes, recycled (consolidated or reprocessed) latex *paint*, specialty (industrial, marine or automotive) *coatings*, or *paint* sold in aerosol cans. See Appendix 1 for an example list of products included in this standard.

Words and phrases described in the standard that appear in *italics* have a corresponding definition located in the definition section of the standard, Annex A.

2.0 PRODUCT-SPECIFIC PERFORMANCE REQUIREMENTS

2.1 Paints and Coatings. All paints and coatings, including primers and undercoats, shall meet the following performance requirements. All tests shall be performed on product produced by the manufacturer and do not include additives at the point-of-sale.

2.1.1 Adhesion. The *product* shall demonstrate a minimum of 50% or better rating for wet and dry adhesion over the intended substrate, except concrete, as determined by ASTM International (ASTM) D3359-2 Standard Test Methods for Measuring Adhesion by Tape Test. *Products* intended to be applied on concrete shall demonstrate 200 psi failure in the concrete as determined by ASTM D7234-05 Standard Test Method for Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers.

2.1.2 Applicability (Flow and Leveling). The product shall demonstrate applicability by either a minimum 6 rating for foaming, leveling, and spatter resistance as determined by ASTM D7073-05 Standard Guide for Application and Evaluation of Brush and Roller Applied Paint Films or a 12-14 minimum drawdown as tested by ASTM D4400-99(2007) Standard Test Method for Sag Resistance of Paints Using a Multinotch Applicator. Floor paints shall demonstrate a minimum 7 rating as determined by ASTM D4062-99(2003) Standard Test Method for Leveling of Paints by Draw-Down Method.

2.1.3 Hiding Power (Opacity). The *product* shall demonstrate a minimum 0.95 contrast ratio at 400 square feet per gallon as determined by ASTM D2805-96a (2003), Standard Test Method for Hiding Power of Paints by Reflectometry.

¹ **Stain** is defined under ASTM D16-03, Standard Terminology for Paint, Related Coatings, Materials, and Applications as “a penetrating composition that changes the color of a surface, usually transparent and leaving practically no surface film”.

Compliance will be determined on dried film of the un-tinted white *paint* having a minimum 80% reflectance.

2.2 Anti-Corrosive Coatings. In addition to the requirements listed in 2.1, anti-corrosive coatings shall meet the following requirements:

2.2.1 Corrosion Resistance. Using manufacturer recommended minimum dry film thickness (DFT) and application to hot rolled steel panels², the *anti-corrosive coating product* shall have a minimum rust rating of 9 per SSPC-VIS 2 Standard Method of Evaluating Degree of Rusting on Painted Steel Surfaces after 300 hours of exposure as determined by ASTM D5894-05 Standard Practice for Cyclic Salt Fog/UV Exposure of Painted Metal, (Alternating Exposures in a Fog/Dry Cabinet and a UV/Condensation Cabinet).

2.3 Floor Paints. In addition to the requirements listed in 2.1, floor paints shall meet the following requirements:

2.3.1 Alkali Resistance. The *product* shall show no signs of lifting, wrinkling, disintegration or more than a slight color change after 16 hours exposure to 0.5N sodium hydroxide solution by spot test as determined by ASTM D1308-02(2007) Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes.

2.3.2 Scrubbability (Abrasion Resistance). Using a C-17 wheel and 500 gram weight, the *product* shall demonstrate a wear index of 200 or less as determined by ASTM D4060-07, Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.

2.4 Interior Topcoats. In addition to requirements listed in 2.1, interior topcoats shall meet the following requirements:

2.4.1 Scrubbability (Abrasion Resistance). Using a shim, the *product* shall demonstrate 400 scrub cycles before failure per Leneta Calibration Scrub Panel Form P121-C as determined by ASTM D2486-06 Standard Test Method for Scrub Resistance of Interior Latex Flat Wall Paints.

2.4.2 Washability (Stain Removal). The *product* shall demonstrate the following minimum requirements for stain removal as determined by ASTM 4828-91 Mechanical Method, Standard Test Method for Practical Washability of Organic Coatings.

²The hot rolled steel test panels should adhere to Society for Protective Coatings (SSPC) Paint 23 or Paint 24 specifications. If there is no recommended film thickness, then the DFT of each coat shall be 60 to 90 micrometers (2.5 to 3.5 mils).

<i>Flat Topcoat</i>	5 minimum rating
<i>Non-Flat Topcoat</i>	7 minimum rating

2.5 Exterior Topcoats. In addition to the requirements listed in 2.1, exterior topcoats shall meet the following requirements:

2.5.1 Fade Resistance. Using 4 oz of red iron oxide pigment, the *product* shall demonstrate a minimum durability total color change of $\Delta E < 5$ of 1000 hours using QUV-A bulbs with a moisture and/or condensation cycle following the guidelines in ASTM G151-06 Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Source.

2.5.2 Flexibility. The *product* shall show no signs of cracking, peeling or loss of adhesion as determined by ASTM D522-93a (2001) Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings under the following cure conditions: 3 days air dry followed by 1 week at 50°C.

2.5.3 Water Resistance. The *product* shall show no signs of washing off, lifting or wrinkling as tested by ASTM D1735-04 Standard Practice for Testing Water Resistance of Coatings Using Water Fog Apparatus.

2.6 Non-Elastomeric Reflective Wall Coatings. In addition to the requirements in 2.1, non-elastomeric reflective wall coatings shall meet the following requirements:

2.6.1 Accelerated Weathering. The *product* shall show no signs of blistering, chalking, checking, cracking, flaking or loss of adhesion with a maximum change of 10 gloss level units after 500 hrs using QUV-A bulb as measured by ASTM D714-02e1 Standard Test Method for Evaluating Degree of Blistering of Paints.

2.6.2 Flexibility. The *product* shall meet the requirements as listed in Section 2.5.2.

2.6.3 Solar Reflectance. The *product* shall meet the requirements as listed below as determined by ASTM C1549-04 Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer or ASTM E1918-06 Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.

Characteristic	Performance Specification	
	Light Tones ³	Dark Tones
Solar Reflectance	≥ 0.65	≥ 0.40

2.6.4 Thermal Emittance. The *product* shall have a thermal emittance of 75% or more as determined by ASTM C1371-04a Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.

2.7 Elastomeric Reflective Wall Coatings. Elastomeric reflective wall coatings shall meet the following requirements:

2.7.1 Accelerated Weathering. The *product* shall show no signs of cracking or checking after 1000 hrs as determined by ASTM G155-05a Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.

2.7.2 Elongation and Tensile Strength. The *product* shall show minimum 100% elongation and minimum 200 psi tensile strength as determined by ASTM D2370-98(2002) Standard Test Method for Tensile Properties of Organic Coatings.

2.7.3 Flexibility. The *product* shall demonstrate ½ mandrel bend at -15°F as determined by ASTM D522-93a (2001) Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings under the following cure conditions: 3 days air dry followed by 1 week at 50°C.

2.7.4 Fungi Resistance. The *product* shall show zero rating as determined by ASTM G21-96(2002) Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.

2.7.5 Solar Reflectance. The *product* shall meet the requirements as listed in Section 2.6.3.

2.7.6 Thermal Emittance. The *product* shall meet the requirements as listed in Section 2.6.4.

2.8 Reflective Roof Coatings. Reflective roof coatings shall meet the following requirements:

³Light tones are characterized by the following six color families as defined by the Cool Roof Rating Council (CRRC): Beige/Off-White, Tan, White, Bright White, Pearlescent Silver and Pearlescent Copper. Dark tones are the remaining twelve color families and include reds, blues, browns, greens and black/grays.

2.8.1 Physical Properties. The *product* shall meet the requirements in ASTM D6083-05e1 Standard Specification for Liquid Applied Acrylic Coating Used in Roofing.

2.8.2 Solar Reflectance. The *product* shall meet the requirements as listed below as determined by ASTM C1549-04 Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer or ASTM E1918-06 Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.

Characteristic	Performance Specification ⁴	
	Low-Slope Roofs	Steep-Slope Roofs
Initial Solar Reflectance	≥ 0.65	≥ 0.25
Maintenance of Solar Reflectance	≥ 0.50 (three years after installation under normal conditions)	≥ 0.15 (three years after installation under normal conditions)

2.8.3 Thermal Emittance. The *product* shall have a thermal emittance of 80% or more as determined by ASTM C1371-04a Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emisometers.

2.9 Alternative Performance Requirements. Alternatively, a product can demonstrate adequate performance through using another scientifically validated test method under controlled and reproducible laboratory conditions if accompanied by justification for the method modification and documented in sufficient detail.

3.0 PRODUCT-SPECIFIC HEALTH AND ENVIRONMENTAL REQUIREMENTS

3.1 Compound Prohibitions. The product shall not contain any ingredients that are carcinogens, mutagens, reproductive toxins, hazardous air pollutants or ozone-depleting compounds. An exception shall be made for titanium dioxide and, for products that are pre-tinted by the manufacturer, carbon black. Carbon black allowed under this exception shall be less than or equal to 1% by weight of the product.⁵

Naturally occurring elements and chlorinated organics, which may be present as a result of chlorination of the water supply, are not considered *ingredients* if the concentrations

⁴ Low-slope roofs are surfaces with a slope of 2:12 inches or less and Steep-slope roofs are surfaces with a slope of greater than 2:12 inches as determined by ASTM E1918-06 Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.

⁵ Titanium Dioxide: EC Number 236-675-5, CAS Number 13463-67-7
Carbon Black: EC Number 215-609-9, CAS Number 1333-86-4

are below the applicable maximum contaminant levels in the National Primary Drinking Water Standards found in 40 CFR, Part 141.

3.2 Specific Compound Prohibitions. The product shall not contain the following ingredients:

- 1,2-dichlorobenzene
- Alkylphenol ethoxylates
- Formaldehyde-donors
- Heavy metals, including lead, mercury, cadmium, hexavalent chromium and antimony in the elemental form or compounds
- Phthalates
- Triphenyl tins and tributyl tins

3.3 Volatile Aromatic Compound Content Limit. The product shall contain no more than 0.5% by weight of sum total of volatile aromatic compounds. Testing for the concentration of these compounds will be performed if they are determined to be present in the product during a materials audit.

3.4 Volatile Organic Compound (VOC) Content Limit. The VOC concentration of the product shall not exceed those listed below in grams of VOC per liter of product as determined by ASTM D6886-03 Standard Test Method for Speciation of the Volatile Organic Compounds (VOCs) in Low VOC Content Waterborne Air-Dry Coatings by Gas Chromatography using 280°C as a specified limit. Alternatively, International Organization for Standardization (ISO) 11890-2 Paints and varnishes -- Determination of volatile organic compound (VOC) content Part 2: GC/MS method may be used, but must use 280°C as a marker. Another scientifically validated test method may be used if accompanied by justification for the method modification and documented in sufficient detail.

The calculation of *VOC* shall exclude water and *colorants* added at the point-of-sale.

Product Type	VOC level (g/L)
<i>Flat Topcoat</i>	50
<i>Non-Flat Topcoat</i>	100
<i>Primer or Undercoat</i>	100
<i>Floor Paint</i>	100
<i>Anti-Corrosive Coating</i>	250
<i>Reflective Wall Coating</i>	50
<i>Reflective roof Coating</i>	100

3.5 Colorant Added at the Point-of-Sale VOC Content Limit. The VOC concentration of the product including the colorant added at the point-of-sale shall not exceed those listed below in grams of VOC per liter of product as determined by the methods listed in Section 4.4. Green Seal will apply an average VOC level calculation unless a manufacturer can provide documentation of the colorant(s) VOC levels and specifies that only those colorant(s) tested shall be used with the product⁶.

Product Type	VOC level (g/L)
<i>Flat Topcoat with colorant added at the point-of-sale</i>	100
<i>Non-Flat Topcoat with colorant added at the point-of-sale</i>	150
<i>Primer or Undercoat with colorant added at the point-of-sale</i>	150
<i>Floor Paint with colorant added at the point-of-sale</i>	150
<i>Anti-Corrosive Coating with colorant added at the point-of-sale</i>	300
<i>Reflective Wall Coating with colorant added at the point-of-sale</i>	100
<i>Reflective roof Coating with colorant added at the point-of-sale</i>	150

4.0 END-OF-LIFE MANAGEMENT

4.1 Consumer Education. The manufacturer shall provide information to the consumer through print, online or other accessible media including:

- Instructions for purchasing the appropriate amount of *product* needed for a specified job.
- Instructions for adequate ventilation during *paint* application and drying period.
- Instructions on proper use of the *product*.
- A statement encouraging consultation with local authorities for proper disposal or recycling opportunities for leftover *product* and packaging.
- If a manufacturer provides a take-back program, instructions on how the *product* and packaging can be returned.

⁶ If appropriate information is not available about the VOC content in the *colorants*, an average of 70 grams/liter from the *colorant* will be added to the VOC content of the base paint product, for each paint type (flat, non-flat, primer, etc.).

4.2 Leftover Paint. Leftover paint from the manufacturing process shall be utilized locally and/or domestically where there are existing markets.

5.0 PACKAGING REQUIREMENTS

5.1 Packaging. The packaging shall contain a minimum of 20% recovered material content. An exception shall be made for packaging that can be recycled as part of a manufacturer take-back program.

5.2 Heavy Metal Restrictions. Heavy metals, including lead, mercury, cadmium, and hexavalent chromium, shall not be intentionally introduced. Further, the sum of the concentration levels of these metals present shall not exceed 100 parts per million by weight (0.01%); an exception is allowed for packages that would not exceed this maximum level but for the addition of recovered materials. Further, intentional introduction does not include the use of one of the metals as a processing aid or intermediate to impart certain chemical or physical changes during manufacturing, where the incidental retention of a residual of that metal in the final package or packaging component is not desired or deliberate, if the final package or packaging component complies with the incidental concentration restrictions of 100 ppm.

5.3 Other Restrictions. Phthalates are prohibited from being intentionally introduced; an exception is allowed for packages that would not have added phthalates but for the addition of recovered material.

6.0 CERTIFICATION AND LABELING REQUIREMENTS

6.1 Label Requirements. The manufacturer's label shall include a statement encouraging consultation with local authorities regarding proper disposal or recycling opportunities for leftover product and packaging. The label shall include instructions for appropriate purchasing, adequate ventilation during drying time, and proper use of the product or include a reference to consumer education information by print, online or other accessible media. If the manufacturer provides a take-back program, the label shall include instructions on how the product and packaging can be returned.

6.2 Certification Mark. The Green Seal® Certification Mark may appear on the product, packaging, secondary documents, and promotional materials, only in conjunction with the certified product. Use of the Mark must be in accordance with *Rules Governing the Use of the Green Seal Certification Mark*⁷.

The Green Seal Certification 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.

⁷ www.greenseal.org/TrademarkGuidelines

Green Seal must review all uses of the Certification Mark prior to printing or publishing.

6.3 Use With Other Claims. The Green Seal Certification Mark shall not appear in conjunction with any human health or environmental claims, unless verified and approved in writing by Green Seal.

6.4 Statement of Basis for Certification. Wherever the Green Seal Certification Mark appears, it shall be accompanied by 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, unless an alternate version is approved in writing by Green Seal:

This product meets Green Seal™ Standard GS-11 based on effective performance, recycled packaging, and protective limits on VOCs and human toxicity.
GreenSeal.org.

ANNEX A – DEFINITIONS (Normative)

Note that the defined terms are italicized throughout the standard.

Anti-Corrosive Coating. A *coating* formulated and recommended for use in preventing the corrosion of metal substrates.

Carcinogen. A chemical listed as a known, probable, reasonably anticipated, or possible human carcinogen by the International Agency for Research on Cancer (Groups 1, 2A, and 2B), the National Toxicology Program (Groups 1 and 2), the U.S. Environmental Protection Agency (EPA) Integrated Risk Information System (weight-of-evidence classifications A, B1, B2, and C, carcinogenic, likely to be carcinogenic, and suggestive evidence of carcinogenicity or carcinogen potential), or the Occupational Safety and Health Administration.

Coating. Liquid, liquefiable, or mastic composition that is converted to a solid adherent film after application to a substrate as a thin layer and is used for decorating, protecting, identifying or to serve some functional purpose such as the filling or concealing of surface irregularities or the modification of light and heat radiation characteristics and is intended for on-site application to interior or exterior surfaces of residential, commercial, institutional or industrial buildings. For the purposes of this standard, the definition of *paint* or coating does not include stains, clear finishes, recycled latex *paint*, specialty (industrial, marine or automotive) coatings or *paint* sold in aerosol cans.

Colorant. Concentrated color (dyes or pigments) that can be added to finished *paints* or *coatings* to make specific colors. Unless specified otherwise, it is the maximum amount of colorant recommended for use by the manufacturer.

Elastomeric Reflective Wall Coatings. A *coating* that is designed and intended for the modification of light and heat radiation characteristics and has elastic properties and can stretch in the summertime heat and return to its original shape without damage⁸ with a DFT of 17 dry mils or greater.

Flat. *Paint* or *coating* whose specular gloss registers less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to ASTM Method D 523–89, Standard Test Method for Specular Gloss.

Floor Paint. Opaque *coatings* that are formulated for or applied to flooring surfaces that have a DFT of 10 mils (0.25mm) or less and are applied by roller or brush. For the purposes of this standard, floor *paints* do not include epoxy or urethane flooring systems that include coarse aggregates, color chips or flakes as part of a multi-part flooring system. Floor paints also do not include floor finishes which are defined as any product that leaves a protective wax, polymer or resin *coating* that is designed to be periodically removed and reapplied.

Hazardous Air Pollutant. Any compound listed by the U.S. EPA in the Clean Air Act Section 112(b) (1) as a hazardous air pollutant.

⁸ From the U.S. EPA Heat Island Effect Glossary.

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

Intentional Introduction. The act of deliberately utilizing a material in the formation of a package or packaging component where its continued presence is desired in the final package or packaging component to provide a specific characteristic, appearance, or quality.

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 Harmonized System for the Classification Of Chemicals Which Cause Mutations in Germ Cells (United Nations Economic Commission for Europe, Globally Harmonized System of Classification and Labeling of Chemicals).

Non-Flat. *Paint* or *coating* whose specular gloss registers 15 or greater on an 85-degree meter or 5 or greater on a 60-degree meter according to ASTM Method D 523–89, Standard Test Method for Specular Gloss Paint.

Non-Elastomeric Reflective Wall Coatings. Latex and thermoplastic *coatings* designed and intended for the modification of light and heat radiation characteristics with a DFT of 5 dry mils or greater.

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

Paint. A pigmented *coating*. See definition for *coating*.

Product. Product produced by manufacturer and does not include additives added at the point-of-sale.

Primer or Undercoat. *Coating* that is formulated and recommended for one or more of the following purposes: to provide a firm bond between the substrate and a subsequent *coating*; to prevent a subsequent *coating* from being absorbed into the substrate; to prevent harm to a subsequent *coating* from materials in the substrate or to provide a smooth surface for application of a subsequent *coating*.

Recovered Material. Material that has been recovered from or otherwise diverted from the waste generated after a material manufacturing process. Recovered material may include post-consumer material, cuttings, trimmings, obsolete inventories, and rejected unused stock, but does not include material capable of being re-used within the process that generated it.

Reflective Roof Coating. A non-bituminous *coating* labeled and formulated for application to roofs for the primary purpose of reflecting ultraviolet light or reflecting solar radiation.

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.).

Topcoat. The outermost layer of a *paint* or *coating* system.

Volatile Aromatic Compound. Any hydrocarbon compound containing one or more 6-carbon benzene rings in the molecular structure with an initial boiling point lower than or equal to 280°C measured at standard conditions of temperature and pressure.

Volatile Organic Compound (VOC). Any organic compound which participates in atmospheric photochemical reactions as defined by the U.S. EPA in 40 CFR §51.100 (s) and has an initial boiling point lower than or equal to 280°C measured at standard conditions of temperature and pressure.

APPENDIX 1 – SCOPE (Informative)

Examples of products included in or excluded from the scope of GS-11:

Products Included in GS-11

- Wall *paints* (interior and exterior)
- *Anti-corrosive coatings*
- *Floor paints*
- *Primer or undercoat*
- *Reflective roof coating*
- *Reflective wall coatings (elastomeric and non-elastomeric)*

Products Excluded from GS-11

- *Stains*(included in GS-47)
- *Finishes* (included in GS-47)
- Recycled latex paint (covered in GS-43)
- Specialty (industrial, marine, or automotive) coatings
- Floor care products for industrial and institutional use (floor finishes and strippers) (included in GS-40)
- *Paints* sold in aerosol cans