



ENVIRONMENTAL SPECIFICATION GUIDANCE FOR FLOORING ADHESIVES

The District of Columbia is committed to procuring quality goods and services in a timely manner and at a reasonable cost that support the District in meeting its sustainability goals. Compliance with specification guidance is sufficient to meet PPRA Section 1101(a) environmentally preferable procurement requirements. This additional information provides context, as well as supplemental recommendations that, although recommended, are not required for compliance with PPRA 1101(a). To access solicitation documents with full contract language, [click here](#).



BENEFITS

Several organic VOC levels can average **2 to 5 times higher** indoors than outdoors.

Combining environmentally-friendly adhesives with high-quality sustainable flooring material such as bamboo, results in significantly less formaldehyde, herbicide, and pesticide content than traditional hardwood flooring products.

SOURCES

<https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality#Sources>

<https://greenerideal.com/guides/0916-why-bamboo-is-an-eco-friendly-flooring-option/>

Scope

The environmental specification applies to flooring adhesives used in the installation of carpet or other floorcoverings.

Additional context on ecolabels included in the specification and environmental hotspots is also provided.

COPY AND PASTE THE FOLLOWING SPECIFICATION LANGUAGE INTO THE REQUIREMENTS SECTION OF YOUR STATEMENT OF WORK

EPPS Requirements

Adhesives purchased by the District of Columbia shall meet the environmental criteria defined below. Adhesives shall be certified to at least one (1) of the following standards, using the most recent version in effect at the time of purchase:

- Cradle to Cradle
- Green Seal
- UL Ecologo
- Carpet and Rug Institute (CRI) Green Label Plus
- SCS Indoor Advantage Gold
- UL GREENGUARD

The District prefers that contractors use mechanical fasteners and attachments when installing flooring. It is also desirable to offer “no glue” installations, which would eliminate VOCs from installation.



Supplementary Recommendations

To further improve the environmental performance of adhesives purchased by the District of Columbia beyond the minimum requirements of the environmental specification guidance, purchasers should consider adopting the supplementary recommendations defined below.

Adhesive products used in the installation of floorings or other building maintenance, repair, and operations services shall not contain:

- a. Benzene
- b. Cadmium
- c. Formaldehyde
- d. Hexavalent Chromium
- e. Lead
- f. Mercury
- g. Organotins
- h. PFCs
- i. PFOAs and PFAS
- j. PVC
- k. Ortho-phthalates
- l. Synthetic styrene butadiene latex
- m. Triclocarbon; or
- n. Triclosan

The District prefers that contractors use mechanical fasteners and attachments when installing flooring. When mechanical options are not available, adhesives shall be used if the products comply with the VOC limit (50) established in [Rule 1168](#) by the South Coast Air Quality Management District (SCAQMD) and do not contain chemicals on the Proposition 65 List.



Additional Information



Green Seal is a nonprofit standard setting organization certifying a range of products and services. [Green Seal](#) conducts scientific testing and on-site audits to verify that products meet recognized standards. Relevant standards include:

GS-36: Adhesives for Commercial Use. Green Seal adhesives are widely available and commonly specified by jurisdictions throughout the United States. Certified products can be found at <https://certified.greenseal.org/>



EcoLogo certifications are managed by UL, a global safety science company. Similar to Green Seal, [EcoLogo](#) certifies cleaning and other types of products based on scientific testing and third-party audits. Relevant standards include: UL2762

Adhesives Compliant products are listed in [UL's Sustainable Product Guide](#). EcoLogo adhesive products are widely available and are specified by several jurisdictions throughout the country (United States).



The **UL GREENGUARD** Certification for low chemical emission products demonstrates both compliance with key chemical emission standards and a commitment to healthier indoor environments. More than 450 federal

purchasers, retailers, green building rating tools and building codes around the world recognize, refer to and prefer UL GREENGUARD Certified products (www.ul.com).

There are three tiers of GREENGUARD certification:

1. **GREENGUARD Certification:** Total VOC emission rate of 500 $\mu\text{g}/\text{m}^3$
2. **GREENGUARD Gold Certification:** Total VOC emission rate of 220 $\mu\text{g}/\text{m}^3$
3. **GREENGUARD Formaldehyde-Free Certification:** Must meet GREENGUARD Gold requirements and have a formaldehyde emission factor of less than or equal to 5 $\mu\text{g}/\text{m}^2\cdot\text{hr}$ at 24 elapsed exposure hours or 3 $\mu\text{g}/\text{m}^2\cdot\text{hr}$ at 336 elapsed exposure hours

The GREENGUARD Formaldehyde-free certification is the most stringent of the three certifications, and GREENGUARD Gold status is especially relevant in school and health care applications.

Many products that go into homes and buildings, from furniture, to decorations, to building materials, receive GREENGUARD certifications to allow consumers and procurement officials to identify them as low-emitting products (www.jm.com).



The **Carpet and Rug Institute's Green Label Plus (GLP) program** is recognized by the U.S. Environmental Protection Agency's (EPA's) [Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasing](#). This recognition places the GLP

program as a top-tier program for certification. The Green Label Plus symbol informs customers that they are purchasing the lowest emitting carpet, adhesive, and cushion products on the market. Look for the CRI Green Label Plus logo as proof that the product has been tested and certified by an independent laboratory and has met stringent criteria for low emissions. Underwriters' Laboratory (UL) handles testing of carpet, adhesive, and cushion samples for CRI using the most current, dynamic environmental chamber technology. The test methodology was developed in cooperation with the U.S. EPA and has been adopted by the American Society for Testing and Materials (ASTM) as D5116 – Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products. As of April 2023, 137 Green Label Plus Certified Adhesive Products are available for purchase (www.carpet-rug.org).



Since 1984, SCS has been a pioneer and leader in the field of sustainability standards and third-party certification, working across the economy in the natural resources, built environment, food and agriculture, consumer products and climate sectors. **SCS' Indoor Advantage and Indoor Advantage Gold standard** aligns with both ANSI/BIFMA M7.1 and X7.1, and CA 01350. It is recognized by the [EPA and GSA](#), and qualifies for many building rating systems, including LEED v4.1, BREEAM, WELL Building, and Living Building Challenge. listed on the product label as an active ingredient. As of April 2023, 34 Indoor Advantage and Indoor Advantage Gold adhesive products are available for purchase (www.scsglobalservices.com).



Environmental Hotspots Key human health and environmental benefits associated with this specification

TOXICITY/HEAVY METALS

Many adhesives contain and emit volatile organic compounds (VOCs) which can impact indoor air quality. Many types of VOCs have been linked to a variety of adverse health effects ranging from headaches to cancer. Cradle to Cradle, Green Seal, UL EcoLogo, UL Greenguard, CRI Green Label Plus, and SCS Indoor Advantage prohibit or restrict certain toxic chemicals that have been linked to serious health problems for building occupants and janitorial staff, including asthma and cancer.

PACKAGING

Cradle to Cradle, Green Seal, UL EcoLogo, UL Greenguard, CRI Green Label Plus, and SCS Indoor Advantage require less material intensive packaging methods and/or recycled content for packaging of their certified products.

Significance to the District

SUSTAINABLE DC PLAN

[Sustainable DC](#) Plan Built Environment: Goal 3: “Improve the performance of existing buildings by reducing energy and water use, advancing health, and increasing livability” aims to provide a healthy environment for building occupants. Many sustainable carpets improve indoor air quality and/or emit fewer VOCs, which helps the District to meet this goal.

LEGISLATION

This specification supports compliance with [DC’s Green Building Act](#) which requires LEED Gold certification for New Construction.

LEED FOR BUILDING INTERIORS

[LEED ID+C v1 awards up to four points for low-emitting materials – adhesives and sealants](#) which requires that “All adhesives and sealants used on the interior of the building shall comply with the requirements of the following reference standards: South Coast Air Quality Management District (SCAQMD) Rule #1168, Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000, or meet the testing and product requirements of the California Department of Health Services Standard Practice for The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda.”

For more information about sustainable specification guidance or the District’s Sustainable Purchasing Program, please visit: <https://ocp.dc.gov/page/sustainable-purchasing-program> or call the OCP Procurement Center of Excellence at: [202.724.4477](tel:202.724.4477) or email sppdc@dc.gov.