

- A. This Section includes:
1. Interior paint, except clear finishes and stains.
 2. Exterior paint, except clear finishes and stains.
 3. Specialty coatings.
 - a. Radiation Control Coatings.
 - b. Anti-Corrosive Paint

1.2 SUBMITTALS

- A. Product data. Unless otherwise indicated, submit the following for each type of product provided under work of this Section:

SPECIFIER NOTE:

Recycled paint diverts from the waste stream and conserves water, energy, and raw materials. Green building rating systems often include credit for materials of recycled content. USGBC-LEED™ v2.2, for example, includes credit for materials with recycled content, calculated on the basis of pre-consumer and post-consumer percentage content, and it includes credit for use of salvaged/recovered materials. Green Globes US also provides points for reused building materials and components and for building materials with recycled content.

1. Recycled Content:
 - a. Indicate recycled content; indicate percentage of pre-consumer and post-consumer recycled content per unit of product.
 - b. Indicate relative dollar value of recycled content product to total dollar value of product included in project.
 - c. If recycled content product is part of an assembly, indicate the percentage of recycled content product in the assembly by weight.
 - d. If recycled content product is part of an assembly, indicate relative dollar value of recycled content product to total dollar value of assembly.

SPECIFIER NOTE:

Specifying local materials may help minimize transportation impacts; however it may not have a significant impact on reducing the overall embodied energy of a building material because of efficiencies of scale in some modes of transportation.

Green building rating systems frequently include credit for local materials. Transportation impacts include: fossil fuel consumption, air pollution, and labor.

USGBC-LEED™ v2.2 includes credits for materials extracted/harvested and manufactured within a 500 mile radius from the project site. Green Globes US also provides points for materials that are locally manufactured.

2. Local/Regional Materials:
 - a. Sourcing location(s): Indicate location of extraction, harvesting, and recovery; indicate distance between extraction, harvesting, and recovery and the project site.
 - b. Manufacturing location(s): Indicate location of manufacturing facility; indicate distance between manufacturing facility and the project site.
 - c. Product Value: Indicate dollar value of product containing local/regional materials; include materials cost only.
 - d. Product Component(s) Value: Where product components are sourced or manufactured in separate locations, provide location information for each component. Indicate the percentage by weight of each component per unit of product.

SPECIFIER NOTE:

Green building rating systems may include credit for low emitting materials. USGBC-LEED™ v2.2, for example, includes credits for low-emitting materials, including: adhesives and sealants, paints and coatings, carpets, and composite wood and agrifiber products. Under LEED™ v2.2, adhesives and

sealants are to comply with California's South Coast Air Quality Management District (SCAQMD) #1168; aerosol adhesives are to comply with Green Seal GS-36; interior architectural paints are to comply with Green Seal GS-11; anti-corrosive paints are to comply with Green Seal GS-03; clear wood finishes are to comply with SCAQMD #1113; carpet with the Carpet and Rug Institute (CRI) Green Label Plus; carpet cushion with CRI Green Label program; and, composite wood and agrifiber products are to contain no added urea-formaldehyde.

As per USGBC published Credit Interpretations, the credits for low-emitting materials are directed towards interior, site-installed (i.e. not prefabricated) products. Verify project requirements for low VOC roofing products.

Green Seal, an independent, non-profit organization, certifies low-emitting products using internationally recognized methods and procedures. Green Seal certification meets the criteria of ISO 14020 and 14024, the environmental standards for ecolabeling set by the International Organization for Standardization (ISO); the U.S. Environmental Protection Agency's criteria for third-party certifiers of environmentally preferable products; and the criteria for bona fide ecolabeling bodies of the Global Ecolabeling Network.

3. VOC data: Submit Green Seal Certification to GS-11 and description of the basis for certification.

B. Submit environmental data in accordance with Table 1 of ASTM E2129 for products provided under work of this Section.

1.3 QUALITY ASSURANCE

SPECIFIER NOTE:

The EPA national VOC rule for architectural and industrial maintenance (AIM) coatings and Green Seal GS-11 reference EPA method 24. The AIM rule also explicitly allows for the use of formulation data with the caveat that formulation must be able to stand up to a check by EPA method 24.

ASTM D3960-04 references ASTM D6886 Test Method for Speciation of the Volatile Organic Compounds (VOCs) in Low VOC Content Waterborne Air-Dry Coatings by Gas Chromatography. This new ASTM method gives a direct measurement of VOC in these coatings. Both EPA method 24 and ASTM D3960 indirectly measure VOC in waterborne coatings by first measuring total volatiles (using ASTM D2369) and then measuring (using ASTM D3792 or D4017) and subtracting water to get VOC (VOC = total volatiles minus water). The indirect approach may result in less precision for low VOC waterborne coatings.

A. VOC Content: Determine VOC (Volatile Organic Compound) content of solvent borne and waterborne paints and related coatings in accordance with EPA Method 24 or ASTM D3960.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Paints and primers:

SPECIFIER NOTE:

US-EPA Comprehensive Procurement Guidelines (CPG) recommends 20 percent post-consumer content for white and light colors of latex paint. US-EPA Comprehensive Procurement Guidelines (CPG) recommend 50-99 percent post-consumer content for dark colors of latex paint.

The definition of "post-consumer materials" in the EPA Comprehensive Procurement Guidelines (CPG) is not the same as the definition of "post-consumer coating" in the AIM rule.

CPG defines post-consumer materials as "A material or finished product that has served its intended use and has been diverted or recovered from waste destined for disposal, having completed its life as a consumer item. Post-consumer materials are part of the broader category of recovered materials."

AIM rule defines post-consumer coating as "An architectural coating that has previously been purchased by a consumer or distributed to a consumer but not applied, and reenters the marketplace to be purchased by or distributed to a consumer. Post-consumer coatings include, but are not limited to, coatings collected during hazardous waste collection programs for repackaging or blending with virgin coating materials."

Following is consistent with US-EPA CPG.

Green building rating systems often include credit for materials of recycled content and may distinguish allowable credit for post-consumer and post-industrial (or pre-consumer) recycled content. USGBC-LEED™ v2.2, for example, factors 100 percent of post-consumer recycled content but only 50 percent of pre-consumer (post-industrial) recycled content into calculations for its recycled content materials credit. LEED v2.2 grants one credit to a project for using materials with recycled content such that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 10 percent of the total value of the materials in the project; 10% (post-consumer + 1/2 post-industrial). It grants an additional point for 20% (post-consumer + 1/2 post-industrial).

Green Globes US also provides points for reused building materials and components and for building materials with recycled content.

Recycled content is typically determined by calculating the weight of the recycled material divided by the total weight of the product and expressed as a percentage by weight. (The recycled content “value” of a product as assessed under LEED is determined by multiplying the recycled content percentage and the cost of the product.)

Verify with manufacturer for product availability and recycled content.

1. Recycled Content: Minimum **[20] [xxxx]** percent post-consumer recycled content for light colors; minimum **[50] [xxxx]** percent post-consumer recycled content for dark colors.
 2. Toxicity/IEQ: Comply with applicable regulations regarding toxic and hazardous materials, and as specified. Paints and coatings must meet or exceed the VOC and chemical component limits of Green Seal requirements.
 - a. Interior paint: Comply with GS-11.
 - b. Exterior paint: Comply with GS-11.
- B. Specialty Coatings:
1. Radiation Control Coatings: Minimum solar reflectance of cured coating 0.8 and minimum ambient temperature total hemispherical emittance of cured coating at least 0.08 in accordance with ASTM C1483.
 2. Anti-Corrosive Paint: Comply with GS-03.

PART 3 - EXECUTION

3.X SITE ENVIRONMENTAL PROCEDURES

- A. Indoor Air Quality: Provide temporary ventilation as specified in Section 01 57 19.11 (01352) – Indoor Air Quality (IAQ) Management.
- B. Waste Management: As specified in Section 01 74 19 (01351) – Construction Waste Management and as follows:
 1. Coordinate with manufacturer for **[take-back program]**. Set aside scrap to be returned to manufacturer for recycling into new product. Close and seal all partially used containers of paint to maintain quality as necessary for reuse.

END OF SECTION