

This is a guidance document with sample specification language intended to be inserted into project specifications on this subject as appropriate to the agency's environmental goals. Certain provisions, where indicated, are required for U.S. federal agency projects. Sample specification language is numbered to clearly distinguish it from advisory or discussion material. Each sample is preceded by identification of the typical location in a specification section where it would appear using the SectionFormat™ of the Construction Specifications Institute; the six digit section number cited is per CSI Masterformat™ 2004 and the five digit section number cited parenthetically is per CSI Masterformat™ 1995.

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SECTION 08 14 00 (SECTION 08210) – WOOD DOORS

SPECIFIER NOTE:

resource management: Refer to Division 06 (6) for information on wood.

toxicity/IEQ: Refer to Division 06 (6) for information on wood.

performance: Performance is comparable for green methods and standard methods.

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Solid-core doors with **[wood-veneer] [medium-density overlay] [hardboard]** faces.
 2. Hollow-core doors with **[wood-veneer] [hardboard]** faces.
 3. Exterior stile and rail wood doors.
 4. Interior stile and rail wood doors.

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:

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™ v3 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.

1. 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™ v3, for example, includes credits for low-emitting materials, including: adhesives and sealants, paints and coatings, carpets, and composite wood and agrifiber products. Under LEED™ v3, 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 (note – Green Seal has withdrawn GS-03; as of November 2008, anti-corrosive paints are included in a revised GS-11); 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; hard surface flooring with FloorScore; tile setting adhesives and grout with SCAQMD #1168; 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 products.

Both the Adhesive and Sealant Council (ASC) and the SCAQMD have indicated that low VOC adhesives may have performance difficulties in extreme temperature and humidity conditions.

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.

ANSI A208.1, the Composite Panel Association's Standard for Particleboard, includes maximum formaldehyde emissions for different grades of particleboard; ANSI A208.2, the Composite Panel Association's Standard for MDF, covers MDF for interior applications and includes maximum formaldehyde emission level for different grades of MDF.

2. VOC data:
- a. Adhesives for **[site installation] [factory fabrication]:**
- 1) Submit manufacturer's product data for adhesives. Indicate VOC limits of the product. Submit MSDS highlighting VOC limits.
 - 2) Submit Green Seal Certification to GS-36 and description of the basis for certification.
 - 3) **[Submit manufacturer's certification that products comply with SCAQMD #1168.] [Submit manufacturer's certification that products comply with SCAQMD Rule 1168 in areas where exposure to freeze/thaw conditions and direct exposure to moisture will not occur. In areas where freeze/thaw conditions do exist or direct exposure to moisture can occur, submit manufacturer's certification that products comply with Bay Area AQMD Reg. 8, Rule 51 for containers larger than 16 oz and with California Air Resources Board (CARB) for containers 16 oz or less.]**
- b. Engineered Wood Products: Provide documentation that composite wood and agrifiber products **[are third-party certified as meeting ANSI standard requirements for formaldehyde emissions] [contain no added urea-formaldehyde resins.]**
- 1) ANSI A208.1 – 1999, Particleboard

- 2) ANSI A208.2 – 2002, Medium Density Fiberboard (MDF)
for Interior Applications

SPECIFIER NOTE:

The Food, Conservation, and Energy Act of 2008 (also known as the 2008 U.S. Farm Bill) largely continues programs of the Farm Security and Rural Investment Act of 2002 ([2002 Farm Bill](http://www.usda.gov/farmbill/)) <http://www.usda.gov/farmbill/> Section 9002 requires each Federal Agency to develop a procurement program which will assure that items composed of biobased products will be purchased to the maximum extent practicable and which is consistent with applicable provisions of Federal procurement law. USDA designates biobased products for preferred Federal procurement and recommends biobased content levels for each designated product. USGBC-LEED™ v3 includes credits for use of rapidly renewable materials, which USGBC describes as plants harvested within a ten-year cycle. Green Globes – US, provides credit for integration of materials from renewable sources that have been selected based on life-cycle assessment.

3. Biobased materials:
- a. Indicate type of biobased material in product.
 - b. Indicate the percentage of biobased content per unit of product.
 - c. Indicate relative dollar value of biobased content product to total dollar value of product included in project.

SPECIFIER NOTE:

USGBC-LEED™ v3 includes credit for use of sustainably harvested wood certified under Forest Stewardship Council Guidelines. Under LEED™ v3, a minimum of 50 percent of wood-based materials and products incorporated into the Project must be certified in accordance with the Forest Stewardship Council Guidelines. Green Globes US also provides points for wood products that originate from certified sources, such as, Forest Stewardship Council, Sustainable Forestry Initiative, and the CSA Sustainable Forest Management Program.

- B. Letter of Certification(s) for Sustainable Forestry:
1. Forest Stewardship Council (FSC): Provide letter of certification signed by lumber supplier. Indicate compliance with FSC "Principles for Natural Forest Management" and identify certifying organization.
 - a. Submit FSC certification numbers; identify each certified product on a line-item basis.
 - b. Submit copies of invoices bearing the FSC certification numbers.
 2. Sustainable Forestry Board: Provide letter of certification signed by lumber supplier. Indicate compliance with the Sustainable Forestry Board's "Sustainable Forestry Initiative" (SFI) and identify certifying organization.
 - a. Submit SFI certification numbers; identify each certified product on a line-item basis.
 - b. Submit copies of invoices bearing the SFI certification numbers.
 3. Canadian Standards Association (CSA): Provide letter of certification signed by lumber supplier. Indicate compliance with the CSA and identify certifying organization.
 - a. Submit CSA certification numbers; identify each certified product on a line-item basis.
 - b. Submit copies of invoices bearing the CSA certification numbers.
- C. Submit environmental data in accordance with Table 1 of ASTM E2129 for products provided under work of this Section.

1.3 QUALITY ASSURANCE

- A. Sustainably Harvested Wood: Certification Organizations shall be accredited by the **[Forest Stewardship Council] [Sustainable Forestry Board] [Canadian Standards Associations] [xxxxxxx]**.
- B. VOC emissions: Provide low VOC products.
1. Adhesives and sealants: Comply with California's South Coast Air Quality Management District (SCAQMD) #1168
 2. Aerosol adhesives: Comply with Green Seal GS-36
 3. Clear wood finishes: Comply with SCAQMD #1113
 4. Engineered Wood Products: Provide products with no added urea formaldehyde.
 - a. Determine formaldehyde concentrations in air from wood products under test conditions of temperature and relative humidity in accordance with ASTM D6007 or E1333.
 - b. Determine Volatile Organic Compounds (VOC), excluding formaldehyde, emitted from manufactured wood-based panels in accordance with ASTM D6330.

PART 2 PRODUCTS

SPECIFIER NOTE:

EO 13423 includes requirements for Federal Agencies to use "sustainable environmental practices, including acquisition of biobased, environmentally preferable, energy-efficient, water-efficient, and recycled-content products"

Specifically, for USDA-designated biobased products, Federal agencies must use products meeting or exceeding USDA's biobased content recommendations; and for other products, biobased products made from rapidly renewable resources and certified sustainable wood products.

And, under the Sustainable Building requirements per Guiding Principle #4 Enhance Indoor Environmental Quality, EO13423 directs Federal agencies to use "materials and products with low pollutant emissions, including adhesives, sealants, paints, carpet systems, and furnishings."

Executive Order 13514; *Federal Leadership in Environmental, Energy, and Economic Performance*; was signed on October 5, 2009. <http://www.ofee.gov/execorders.asp> It expands upon the environmental performance requirements of EO 13423. http://www1.eere.energy.gov/femp/regulations/printable_versions/eo13423.html

EO 13514 sets numerous federal requirements in several areas, including sustainable buildings and communities. Federal agencies must implement high performance sustainable federal building design, construction, operation and management, maintenance, and deconstruction, including:

- Ensuring all new Federal buildings, entering the design phase in 2020 or later, are designed to achieve zero net energy by 2030.
- Ensuring all new construction, major renovations, or repair or alteration of Federal buildings comply with the Guiding Principles of Federal Leadership in High Performance and Sustainable Buildings <http://www1.eere.energy.gov/femp/pdfs/mouhighperfsustainfedfac.pdf>
- Ensuring at least 15% of existing agency buildings and leases (above 5,000 gross square feet) meet the Guiding Principles by fiscal year 2015 and that the agency makes annual progress towards 100% compliance across its building inventory.

2.1 MATERIALS

- A. Lumber for Core, Stile and Rail, and Wood Veneer:
1. Resource Management:

- a. Virgin Lumber: Lumber fabricated from old growth timber is not permitted. Provide sustainably harvested; certified or labeled in accordance with **[FSC] [SFI] [CSA] [xxxxx]** guidelines.
 - b. Salvaged Lumber: Lumber from deconstruction or demolition of existing buildings or structures. Unless otherwise noted, salvaged lumber shall be delivered clean, denailed, and free of paint and finish materials, and other contamination.
 - c. Recovered Lumber: Previously harvested lumber pulled from riverbeds or otherwise abandoned. Unless otherwise noted, recovered lumber shall be delivered clean and free of contamination.
- B. Engineered Wood Products:
1. Toxicity/IEQ:
 - a. Products shall contain no added urea-formaldehyde.

2.2 ACCESSORIES

- A. Adhesives for **[site installation] [factory fabrication]**:
1. Toxicity/IEQ: Comply with applicable regulations regarding toxic and hazardous materials, GS-36 for Commercial Adhesive, **[South Coast Air Quality Management District Rule 1168] [Bay Area AQMD Reg. 8, Rule 51 for containers larger than 16 oz and with California Air Resources Board (CARB) for containers 16 oz or less]**, and as specified.

2.3 FABRICATED PRODUCTS

- A. Wood Doors:

SPECIFIER NOTE:

For current designations under the Federal Biobased Products Preferred Procurement Program (FB4P), refer to www.biobased.oce.usda.gov. As of January 4, 2010, the Federal Register includes designations for approximately 60 product types. The requirements for purchasing biobased items apply to those items directly purchased by the federal agency. Under a construction contract, the contractor's use of hydraulic fluid in its bulldozers and backhoes is incidental to the purpose of its contract, so the contractor is not required to use biobased hydraulic fluids. The Office of the Federal Environmental Executive (OFEE) recommends that agencies encourage the use of these items, however.

Currently designated items that affect construction include:

- Roof Coatings
- Water Tank Coatings
- Adhesive and Mastic Removers
- Composite Panels
- Fertilizers
- Plastic Insulating Foam
- Carpet and Upholstery Cleaners
- Carpets
- Dust Suppressants
- Packaging Films
- Glass Cleaners
- Hydraulic Fluids – Stationary Equipment
- Wood and Concrete Sealers
- Cleaners

The USDA currently has identified about 150 items for which it is collecting test data needed for the additional designations of items that will extend preferred procurement status to include all qualifying biobased products.

1. Biobased Content:
 - a. Acoustical panels: Engineered products designed for use as structural and sound deadening material suitable for office partitions and doors. Provide minimum 37% biobased content.

PART 3 - EXECUTION

3.X SITE ENVIRONMENTAL PROCEDURES

- A. Indoor Air Quality:
 1. Temporary ventilation: Provide temporary ventilation as specified in Section 01 57 19.11 (01352) – Indoor Air Quality (IAQ) Management, and as follows.
 - a. During and immediately after installation of prefabricated wood products, and laminated wood products at interior spaces, provide temporary ventilation.

END OF SECTION