

## SECTION 01 60 00

### PRODUCT REQUIREMENTS

#### PART 1 – GENERAL

##### 1.01 SECTION INCLUDES

- A. Quality of materials.
- B. VOC regulations.
- C. Appurtenances and accessories.
- D. Packaging and handling.
- E. Transportation and delivery.
- F. Storage and protection.
- G. Material safety data sheets.

##### 1.02 MEASUREMENT AND PAYMENT

- A. Separate measurement or payment will not be made for work required under this Section. All costs in connection with the work specified herein will be considered to be included with the related item of work in the Bid Schedule of the Bid Form, or incidental to the Work.

##### 1.03 QUALITY OF MATERIALS

- A. Materials, equipment, appliances, fixtures, and fabricated assemblies to be incorporated in the Work shall be new, except as may be indicated or specified otherwise in the Contract Documents.
- B. Materials, equipment, assemblies, and systems shall be manufactured, fabricated, handled, and incorporated into the Work so as to ensure completed work meeting the Contract requirements.
- C. Additional quality assurance provisions for materials and equipment are specified in Section 01 43 00 - Quality Assurance.
- D. Additional Requirements are included in General Conditions Article GC6, Control of Materials.

**1.04 VOC REGULATIONS**

- A. Materials shall comply with the current, applicable regulations of the Environmental Protection Agency (EPA), The California Building Standards Commission (including all standards referenced in the California Green Building Standards Code (CalGreen), California Air Resources Board (CARB), and the Bay Area Air Quality Management District governing permissible content of volatile organic compounds (VOC). Refer to Section 01 81 13 “Sustainability Requirements” for additional information on VOC requirements for products.

**1.05 APPURTENANCES AND ACCESSORIES**

- A. Products to be incorporated in the Work shall be furnished as complete assemblies or systems with all appurtenances and installation anchors, fasteners, and accessories as required to provide a complete and finished product installation.
- B. Installed products with moving parts shall be fully operable at proper settings and levels in accordance with the respective manufacturers' instructions and recommendations.

**1.06 PACKAGING AND HANDLING**

- A. Avoid bending, scraping, or overstressing materials and equipment. Protect projecting parts by blocking with wood, by providing bracing, or by other approved methods.
- B. Materials and equipment shall be protected from soiling and moisture by wrapping or by other approved methods.
- C. Small parts shall be packaged in containers such as boxes, crates, or barrels to avoid dispersal and loss. Firmly secure an itemized list and minimize construction waste associated with packaging as specified in Section 01 81 13 “Sustainability Requirements” description of contents to each such container.

**1.07 TRANSPORTATION AND DELIVERY**

- A. Arrange deliveries of materials and equipment in accordance with the Detailed Project Schedule specified in Section 01 32 16 - Construction Progress Schedule, and coordinate to avoid conflict with work and conditions at the site.
- B. Deliver materials in undamaged condition, in manufacturers' original containers or packaging (where applicable), with identifying labels intact and legible.
- C. Deliver cement, prepared dry mortar mixes, grouting material, plaster, and coloring material in original, unopened and sealed containers, bearing the brand and manufacturer's name.
- D. Refer also to the individual Specifications Sections for detailed requirements as applicable.

**1.08 STORAGE AND PROTECTION**

- A. The receiving, storage, quality, and inventory control of equipment and materials required for the Work of this Contract shall be the sole responsibility of the Contractor. Arrange storage to provide easy access for inspection and identification of each shipment.
- B. Store materials in such a manner as to ensure the preservation of their quality and fitness for the work and to facilitate inspection.
- C. Provide sheltered, weathertight, or heated weathertight storage as required to protect materials and equipment from weather damage and corrosion.
- D. Store manufactured materials in accordance with the various manufacturers' instructions, with seals and labels intact and legible. Maintain temperature and humidity within the ranges required by the various manufacturers' instructions.
- E. Provide blocking, platforms, pallets, or skids for materials and equipment subject to damage by contact with earth or pavement. Provide clearances from adjacent surfaces for stored materials requiring natural ventilation.
- F. Store packaged materials in their original unbroken packages or containers.
- G. Protect materials and equipment from damage and corrosion during warehousing operations.
- H. Perform periodic inspections of stored materials to assure that materials are maintained under specified conditions, and are free from damage or deterioration.
- I. Continue protection of materials and equipment from damage and corrosion after installation until final acceptance of the Work.
- J. Refer also to the individual Specifications Sections for detailed requirements, as applicable.

**1.09 MATERIAL SAFETY DATA SHEETS (MSDS)**

- A. The Contractor shall furnish MSDS for all materials to be incorporated in the Work. A file drawer or drawers shall be provided in the Contractor's field office (or other acceptable location) for the filing of all MSDS. MSDS shall be filed in accordance with Specifications' Section numbers, and shall be readily available to the Engineer, jurisdictional inspection authorities, and all personnel engaged in the Work.
- B. MSDS for material that are flammable or otherwise hazardous shall be posted on a bulletin board provided for this specific purpose. This bulletin board shall be located at the site, sheltered from rain and wind, and shall be readily accessible to all personnel engaged in the Work. Refer to Section 01 81 13 "Sustainability Requirements" for additional product submittal requirements related to Sustainability Information.

PRODUCT REQUIREMENTS

**PART 2 – PRODUCTS**

Not Used

**PART 3 – EXECUTION**

Not Used

**END OF SECTION 01 60 00**