

SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 DEFINITIONS

- A. "Products" is defined as new material, machinery, components, equipment, fixtures, and systems used in the Work. Products do not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for re-use.
- B. "Materials" are products that are shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
- C. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.
- D. Definitions in this article are not intended to negate meaning of other used in Contract have terms Documents, including "specialties", "systems", "structure", "finishes", "accessories", "furnishings", the self "special construction", and similar terms, which are self-explanatory and recognized meanings in the construction industry.

1.2 BASIC PRODUCT REQUIREMENTS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
 - 1. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- B. To the fullest extent possible, provide products of the same kind, from a single source.
- C. Provide interchangeable components of the same manufacturer, for similar components.
- D. When the Contractor has the option of selecting two or more products, ensure that products selected shall be compatible with products previously installed or approved.
- E. Provide all products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
- F. Galvanic Corrosion: Install materials in manner which will effectively isolate dissimilar metals which may potential for galvanic corrosion. Use non -absorptive dielectric material, isolation coatings, or other protective isolator approved by Architect.
- G. Fasteners, Anchors, and Connections: Engineer and provide all fasteners, anchors, and connections needed to safely, securely, and appropriately permanently secure all Work in place.
 - 1. The Contractor is solely responsible for the capacity, suitability, adequacy, and safety of all welded, fastened and anchored connections.
- H. Permanent Labels:
 - 1. Restrictions:
 - a. Do not provide labels, nameplates, or trademarks which are not required by code, or regulations.
 - b. Do not provide labels, nameplates, or trademarks when individual specification sections specifically exclude them.

- c. Do not expose manufacturers, suppliers, or installer's name, logo, or trade names on normally visible surfaces.
2. Data Plates: Provide permanent data plate on each item of equipment stating manufacturer, model, serial number, date of manufacture, capacity, ratings, power requirements, and all other essential data.
3. Generally, locate required permanent labels on inconspicuous surfaces.

1.3 GENERAL ENVIRONMENTAL REQUIREMENTS FOR PRODUCTS

- A. General: Prohibit the use of or incorporation into the work of materials which contain toxic, hazardous and harmful materials.
 1. Hazardous materials: Defined as pesticides, biocides, and carcinogens as listed by recognized authorities, such as the Environmental Protection Agency (EPA), the International Agency for Research on Cancer (IARC) or regulated under OSHA Hazard Communication Standard, 29 CFR 1910.1200.
 2. Harmful materials: Defined as materials which contain the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances; or degrade the utility of the environment for aesthetic, cultural, or historical purposes.
 3. Owner restricted materials: Defined as all products to which the Owner has a reasonable objection because of its content, composition, properties, or characteristics.
- B. Vapors, Gases, Fumes, Odors:
 1. General: Comply with all state and federal VOC requirements. Where ever possible use non-VOC materials.
 - a. Limit use of products to the greatest extent possible which have "off -gassing", fumes, flammability, and other harmful characteristics.
 - 1) Prohibit use of products which contain substances that contribute significantly to the production of photochemical smog, tropospheric ozone, or poor indoor-air quality.
 - b. Limit use ozone-depleting compounds to the greatest extent. An ozone-depleting compound is any compound with an ozone-depletion potential greater than 0.01 (CFC 11 = 1).
 - c. Use organic and biodegradable cleaners to the greatest extent possible.
 2. Do not install, use for installation, and use for cleaning those materials which may produce objectionable (to Owner and public) vapor s, gases, fumes, odors, or similar conditions.
 3. Do not install or use products which may have possible chemical or biological reactions with other on -site materials.
- C. Toxicity of prefabricated wood products: Products shall contain no urea -formaldehyde.
- D. Adhesives: Provide adhesives approved by the manufacturers of the products being adhered which are Low -VOC or non -VOC, non -flammable, water-proof after cured, odor free.
- E. Interior Paints: Provide products that comply with specified VOC requirements:
- F. Sealants: Provide products that comply with specified VOC requirements. Avoid the use of the following products: Butyl Rubber; Solvent Acrylic; Neoprene; Styrene Butadiene Rubber; Nitril.
- G. Material Safety Data Sheets (MSDS): Obtain and maintain on -site record data sheets for each product brought onto the Site.
 1. Maintain an organized file of Material Safety Data Sheets at the job -site for quick reference.
 2. Furnish MSDS for all finishes, paints, coatings, curing compounds, sealers, adhesives, mastics, waterproofing, dampproofing, sealants, cleaning chemicals, carpets, upholstery, fabrics and all similar products.

- H. Cleaning and maintenance products:
 - 1. Provide data on manufacturers' recommended maintenance, cleaning, refinishing and disposal procedures for materials and products utilized. These procedures are for final Contractor cleaning of the project prior to substantial completion and for provided materials and products as required by the specific specification sections.
 - a. Where chemical products are recommended for these procedures, provide documentation to indicate that no component present in the cleaning product at more than 1% of the total mass of the cleaning product is a carcinogen or reproductive toxicant as defined in the lists in this specification section.
 - b. For purposes of reporting, identification of product VOC contents shall not be limited to those regulated.
 - 2. Avoid cleaning products containing alpha-pinene, d-limonene or other unsaturated carbon double bond alkenes due to chemical reactions with ozone to formaldehydes, acidic aerosols, and ultra fine particulate matter in indoor air.
- I. Establish written Contractor's safety and emergency response procedures for safety precautions, accidents, emergency conditions, and clean-up methods.

1.4 OWNER FURNISHED PRODUCTS

- A. Owner Furnished Products: As provided in the General Conditions, the Owner will provide products by others under a separate agreement.
 - 1. Owner's responsibilities regarding Owner furnished products:
 - a. Arrange for and deliver Owner reviewed shop drawings, product data, and samples to Contractor.
 - b. Arrange and pay for product delivery to site.
 - c. On delivery, inspect products jointly with Contractor.
 - d. Submit claims for transportation damage, and replace damaged, defective, or deficient items.
 - e. Arrange for manufacturers' warranties, inspections, and service agreements.
 - 2. Contractor's responsibilities regarding Owner furnished products:
 - a. Review Owner reviewed shop drawings, product data, and samples to Contractor.
 - b. Receive and unload products at site, inspect for completeness or damage, jointly with Owner.
 - c. Handle, store, and provide temporary protection.
 - d. Repair or replace items damaged after receipt.
 - e. As required by this Contract, finish, install, and clean products.
 - f. Provide protection of installed work.
 - g. When not installed under this Contract, the Contractor shall coordinate Owner installed work with interfacing work of this Contract. The Contractor shall provide temporary protection and final cleaning of Owner installed products, except as directed otherwise.
 - 3. Items noted in Drawings as "Not in Contract" or "N.I.C.", identify work or products which either exist, or are furnished by Owner; such work requires coordination with the Work of this Contract and may even require installation by this Contractor.
- B. The Contractor has coordinating responsibility for Testing laboratory services as identified under Section 01 45 29 TESTING LABORATORY SERVICES and as specified under individual specification sections.

1.5 PRODUCT DELIVERY AND HANDLING REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions and as specified in individual specification sections.
 - 1. Packing: Arrange for the return of packing materials, such as wood pallets, where economically feasible.

- B. Packaging: Deliver materials in recyclable or in reusable packaging such as cardboard, wood, paper, or reusable blankets, which will be reclaimed by supplier or manufacturer for recycling.
 - 1. General: Minimize packaging materials to maximum extent possible while still ensuring protection of materials during delivery, storage, and handling.
 - a. Unacceptable Packaging Materials: Polyurethane, polyisocyanurate, polystyrene, polyethylene, and similar plastic materials such as “foam” plastics and “shrink -fit” plastics.
 - b. Reusable Blankets: Deliver and store materials in reusable blankets and mats reclaimed by manufacturers or suppliers for reuse where program exists or where program can be developed for such reuse.
 - c. Pallets: Where pallets are used, suppliers shall be responsible to ensure pallets are removed from site for reuse or for recycling.
 - d. Corrugated Cardboard and Paper: Where paper products are used, recycle as part of construction waste management recycling program, or return to material's manufacturer for use by manufacturer or supplier.
 - e. Sealants, Paint, Primers, Adhesives, and Coating Containers: Return to supplier or manufacturer for reuse where such program is available.
- C. Schedule deliveries to avoid delays in installation of products, to minimize long -term storage, to prevent overcrowding of construction spaces and to limit potential damage to stored materials. Coordinate with installation to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
- D. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle and store products by methods to prevent soiling, disfigurement, or damage.

1.6 PRODUCT STORAGE AND PROTECTION REQUIREMENTS

- A. Store and protect products in accordance with manufacturer's instructions and as specified in individual specification sections.
 - 1. Provide all necessary equipment and personnel to store products by methods to prevent soiling, disfigurement and damage.
 - 2. Avoid excessive material handling and potential product damage, locate storage areas convenient to work areas.
 - 3. Store and protect products with seals and labels intact and legible.
 - 4. Store and handle materials in a manner as to prevent loss from weather and other damage.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.
- C. Provide off-site storage and protection when site does not permit on -site storage or protection.
 - 1. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
 - 2. Store sensitive products in weather -tight, climate controlled enclosures.
 - 3. Prevent contact with material that may cause corrosion, discoloration, or staining.
- D. Store loose granular materials on solid flat surfaces in a well -drained area; prevent mixing with foreign matter.
- E. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.
- F. Store heavy materials in locations and in a manner that will not damage or disfigure existing, or new construction.

1.7 MOLD PROTECTION

A. General:

1. Keep building materials dry to prevent the growth of mold and bacteria, including, but not limited to: gypsum wallboard, wood, porous insulation, paper, and fabric.
2. Cover materials to prevent rain damage, and if resting on the ground, use spacers to allow air to circulate between the ground and the materials.
3. Thoroughly dry all water damaged materials within 24 hours from time of moisture damage. Materials that have been damp or wet for more than 24 hours shall be jointly reviewed by General Contractor and Architect, or Owner's Project Representative to determine whether damp/wet materials need to be disposed.
 - a. Review moisture damaged materials for signs of mold and mildew, including any with moisture stains, from the site and properly dispose of them.
 - b. Replace water damaged and moldy materials with new, undamaged materials.

1.8 CONSTRUCTION WASTE MANAGEMENT

- A. Source separation: Separate, store, protect, and handle at the site identified recyclable and salvageable waste products in order to prevent contamination of materials and to maximize recyclability and salvageability of identified materials. Refer to the Waste Management Requirements Plan specified under Section 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL.
- B. Return: Set aside and protect misdelivered and substandard products and materials and return to supplier for credit.
- C. Reuse and Salvage: Set aside, sort, and protect separated products and materials for collection, re use by Owner, as designed for re-use on-site or designated for salvage by Owner's separate waste recycling contractor.
- D. Recycling: Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials. Refer to the Waste Management Requirements and Plan specified under Section 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION