

SECTION 06 61 00

SIMULATED STONE FABRICATIONS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Simulated stone fabrication items including but not necessarily limited to the following:
 - a. [Countertops.]
 - b. [Lavatory counters.]
 - c. [Transaction counters.]
 - d. [Sinks integral with countertops.]
 - e. [Face trims and splashes.]
 - f. [Window sills.]
 - g. [Public telephone alcoves tops.]
 - h. [Nurses Stations.]
 - i. [Miscellaneous items as indicated on Drawings.]
 - 2. Sealant joints between solid surface items and adjacent surfaces.
- B. Related Sections:
 - 1. Section 06 10 00 - Rough Carpentry: Supplementary supports for large items.
 - 2. Section 06 41 00 - Architectural Wood Casework.

1.02 REFERENCE STANDARDS

- A. American National Standards Institute:
 - 1. ANSI Z124.3 - Plastic Lavatories.
 - 2. ANSI Z124.6 - Plastic Sinks.
- B. ASTM International:
 - 1. ASTM E84 - Surface Burning Characteristics of Building Materials
- C. South Coast Air Quality Management District:
 - 1. SCAQMD Rule 1168 - Adhesive and Sealant Applications.
- D. U.S. Department of Commerce National Institute of Standards and Technology:
 - 1. DOC PS-1 - Construction and Industrial Plywood.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate simulated stone fabrication details with other work supporting, adjoining, or fastening to solid surfacing fabrications.
 - 2. Coordinated simulated stone fabrications with installation of associated and adjacent components, [_____.],[plumbing rough-in],[and][electrical rough-in],
 - 3. [Coordinate details with fabrication of [_____].]
- B. [Pre-Installation Meeting:]
- C. Sequencing:
 - 1. Sequence simulated stone fabrication work to ensure utility connections are achieved in orderly and expeditious manner.

- D. Scheduling:
 - 1. Provide information as required for proper placement of backing.

1.04 [SUSTAINABLE CHARACTERISTICS]

- A. Section 01 35 63 - Sustainability Project Requirements: Requirements for sustainable design compliance.

- B. Materials and Resources Characteristics:

- 1. [Recycled Content Materials: Furnish materials with maximum available recycled content including:

SPEC NOTE *List materials specified in this section required to have recycled content.*

- a. [_____.]

- 2. [Regional Materials: Furnish materials extracted, processed, and manufactured within 500 miles of Project site.]

SPEC NOTE *List materials specified in this section required to be regional materials.*

- a. [_____.]

- 3. Certified Wood Materials: [Furnish wood materials] ~~--or--~~[Use a minimum of 50 percent of wood-based materials and products] certified in accordance with FSC Guidelines.

- C. Indoor Environmental Quality Characteristics:

- 1. [Interior] Adhesives: Maximum volatile organic compound content in accordance with SCAQMD Rule 1168.
 - 2. [Interior] Aerosol Adhesives: Maximum volatile organic compound content in accordance with GS-36.

1.05 SUBMITTALS

- A. See Section 01 33 00 - Submittal Procedures, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including dimensions, finishes, storage and handling requirements.
- C. Samples: Submit four 6-inch square sample of selected colors.
- D. Shop Drawings:
 - 1. Show materials, component profiles, installation methods, joint details, and anchorage details.
 - 2. [Show size, shapes and details for integral sinks.]
 - 3. Show all details full size.
 - 4. Show type, size, and spacing of fastenings and method of installation when not indicated on the Drawings.
 - 5. Include field measurements and indicate coordination with pertinent field conditions, such as plumbing and electrical items.
- E. Manufacturer's Instructions: Submit complete manufacturer's fabrication and installation instructions.
- F. Maintenance Data: Submit manufacturer's care and maintenance data, including repair and cleaning instructions.

1.06 [SUSTAINABLE DESIGN SUBMITTALS]

- A. Section 01 35 63 - Sustainability Project Requirements: Requirements for sustainable design submittals.

- B. Manufacturer's Certificate: Certify products meet or exceed specified sustainable design requirements.
 - 1. Materials Resources Certificates:
 - a. Certify recycled material content for recycled content products.
 - b. Certify source for regional materials and distance from Project site.
 - c. Certify lumber is harvested from Forest Stewardship Council Certified well managed forest.
 - 2. Indoor Air Quality Certificates:
 - a. Certify volatile organic compound content for each interior [adhesive] [and] [sealant] and related primer.
 - 1) Provide product data for adhesives, sealants, sealants primer and aerosol adhesives used in the interior of the building highlighting VOC content of each product used. Adhesives and sealants must meet or exceed the VOC limits of SCAQMD Rule #1168. Refer to the LEED 2009 for New Construction and Major Renovations for acceptable VOC limits
 - 2) Provide a listing of each indoor adhesive, sealant, sealant primer and aerosol adhesive product used in the interior of the project. Include manufacture's name, product name, specific VOC data (g/L less water) for each product, and the corresponding allowable VOC from the referenced standard.
- C. Product Cost Data: Submit cost of products to verify compliance with Project sustainable design requirements. Exclude cost of labor and equipment to install products.
 - 1. Provide cost data for the following products:
 - a. Products with recycled material content.
 - b. Regional products.

1.07 QUALITY ASSURANCE

- A. Materials used must be those recommended by the National Sanitation Foundation for use in food service and health care facilities.
- B. Fabricator Qualifications: Fabricator shall be equipped for and experienced in doing work including fabricating, finishing, and installing equal to standards specified, and shall be able to provide evidence of such experience to University's Representative's satisfaction.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation, in a clean dry area off the ground and protected from weather, moisture and damage; store units upright and not stacked unless permitted by manufacturer.
- B. Transport, lift, and handle units with care, avoiding excessive stress and preventing damage; use appropriate equipment.
- C. Provide temporary protective covers for items during delivery, installation, and until final acceptance of Project.
- D. Comply with minimum requirements of Section 01 60 00 - Product Requirements.

1.09 SITE CONDITIONS

- A. Environmental Requirements: Install simulated stone fabrications under adequate lighting conditions and maintain temperature near 70 degrees Fahrenheit during application.

1.10 WARRANTY

- A. Furnish manufacturer's ten-year warranty against defective materials and workmanship.
- B. See Section 01 77 00 - Closeout Procedures.

PART 2 PRODUCTS

2.01 SIMULATED STONE

- A. Panels:
 - 1. Description:
 - a. Solid, cast, non-porous surfacing material homogeneously, composed of natural minerals and high-performance acrylic, not coated, laminated or of composite construction with through body colors, and meeting requirements of ANSI Z124.3 or ANSI Z124.6.
 - b. Flame/Smoke Resistance Requirements: Flame spread index less than 25, smoke developed index less than 450, when tested in accordance with ASTM E84
 - c. Superficial damage to a depth of 0.010 inch shall be repairable by sanding and/or polishing,
 - d. Thickness: 1/2 inch unless otherwise indicated on Drawings.
 - e. [Profile: As indicated on Drawings.
 - 2. Product: E.I. du Pont de Nemours and Co., Inc.'s "Corian, Designers Colors"; or equal.
 - 3. Color: As indicated on Drawings.
- B. Integral Sinks
 - 1. Description:
 - a. Simulated stone countertop with integral sink fabricated of simulated stone panel material.
 - b. Drain hole in lavatory to accept all standard drain hardware.
 - 2. Sink Types:
 - a. Type 1: Rectangular 13 by 16-1/2 inches; E.I. du Pont de Nemours and Co., Inc.'s "Corian #809".
 - b. Type 2: Large oval 16-1/2 by 13 inches; E.I. du Pont de Nemours and Co., Inc.'s "Corian #810".
 - c. Type 2: Small oval 14-3/4 by 10-1/1 inches; E.I. du Pont de Nemours and Co., Inc.'s "Corian #820".
- C. Sinks
 - 1. Description:
 - a. Sink fabricated of simulated stone panel material.
 - b. Size: 15-3/4 by 15-3/4 by 8 inches.
 - c. Drain hole in lavatory to accept all standard drain hardware.
 - 2. Product: E.I. du Pont de Nemours and Co., Inc.'s "Corian 804 Large Single Sink"; or equal.
 - 3. Color: As indicated on Drawings.

2.02 RELATED MATERIALS

- A. Joint Adhesive: Adhesive must meet the following requirements
 - 1. [Meet or exceed VOC limits for adhesives and sealants. Adhesives must meet or exceed the VOC limits of SCAQMD #1168 by, and all sealants used as filler must meet or exceed Bay Area Air Quality Management District Reg. 8, Rule 51.]
 - 2. [Meet all applicable air quality requirements.]
 - 3. Adhesive to create inconspicuous, non-porous joints.
 - 4. Recommended by solid surfacing manufacturer.

- B. Plywood Backing: DOC PS-1 grade structural 1, C-C exterior, with no added urea-formaldehyde resins, fire-retardant treated in accordance with requirements of Section 06 10 00 - Rough Carpentry.
- C. Sealant:
 - 1. Description: One component, translucent color, mildew resistant silicon sealant:
 - 2. Product: General Electric Co.'s "Sanitary 1702 Silicone Sealant"; Dow Corning Corp.'s "Dow Corning 786"; or equal.

2.03 FABRICATION

- A. Preparation:
 - 1. Verify dimensions of receiving spaces at job site.
 - 2. Verify details and dimensions of equipment and fixtures integral with solid polymer fabrications for proper fit and accurate alignment.
- B. Factories fabricate components in accordance with manufacturers printed instructions and reviewed Shop Drawings.
- C. Fabricate to field measurements. Locate seams where shown on reviewed Shop Drawings. Provide seam blocks under all seams where necessary in accordance with manufacturer's recommendations.
- D. Fabricate in one piece wherever possible. Factories fabricate in largest section possible for transporting and building access.
- E. Form joints between components with flush joints sealed using manufacturer's standard joint adhesive with joints inconspicuous in finished work. Use sheets in consecutive order as numbered by manufacturer, whenever possible.
- F. Cut and finish component edges with clean, sharp returns. Ease edges and corners. Route radii and contours to template. Repair or reject defective and inaccurate work.
- G. [Monolithically form sinks into countertops, unless otherwise shown on Drawings.]
- H. Cut and finish component edges with clean, sharp returns. Route radii and contours to template. Repair or reject defective and inaccurate work.
- I. Make cutouts for sinks furnished by others smooth and uniform without saw marks. Finish top and bottom of sink openings smooth. Corners of sink cutouts may be radiused to a minimum of 1/4 inch.
- J. Thermoforming: Comply with product data from simulated stone manufacturer.
 - 1. Construct molds of plywood in "male/female" sections. Construct molds matching component shape
 - 2. Form pieces to shape prior to seaming and joining.
 - 3. Cut pieces to finished dimensions. Sand edges. Remove nicks and scratches.
 - 4. Heat entire component of solid polymer. Material shall be uniform between 275-325 degrees Fahrenheit during forming.
 - 5. Prevent blistering, whitening and cracking of during solid polymer forming.
- K. Coved Backsplashes:
 - 1. Field install back splashes with tight sealed joints.
 - 2. Coves are to be shop fabricated, monolithically molded coves at back and ends where against walls or other vertical surfaces, with 3/8-inch radius between top and splash.

- L. Color Inlays: Comply with product data from solid polymer manufacturer.
 - 1. Rout groove for inlay to straight edge or pattern indicated on Drawings.
 - 2. Fill groove using bulk acrylic material furnished by solid polymer manufacturer. Completely fill with inlay material without air bubbles or voids. Overflow inlay area.
 - 3. Sand curved inlay, finish, and touch up to uniform appearance.
- M. Provide cut-outs as required for mechanical and telephone installation as indicated on Drawings.
- N. Provide for concealed anchorage of tops and splashes.
- O. Finish exposed surfaces according to methods prescribed by the manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine areas scheduled to receive simulate stone fabrications for conditions that will adversely affect installation.
- B. Check field dimensions before beginning installation. If dimensions vary too much from design dimensions for proper installation, notify and wait for instructions before beginning installation.
- C. Verify counters and supports are suitable for installation in accordance with Shop Drawings.
- D. Do not begin installation until substrates have been properly constructed; verify that substrates are plumb and true.
- E. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work
- F. Do not install items before unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install solid surfacing fabrications in accordance with manufacturer's recommendations and reviewed Shop Drawings and product installation data.
- B. Install solid surfacing fabrications plumb and level, scribed to adjacent finishes.
- C. Set countertops on supports and anchor using fasteners shown on Shop Drawings
- D. Form field joints using manufacturer's recommended adhesive, with joints inconspicuous in finished work. Field joints shall be hard seamed unless otherwise specified.
- E. Provide backsplashes and side splashes as indicated on Drawings. Adhere to countertops using manufacturer's standard color-matched silicone sealant.
- F. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- G. Install supplementary temporary and permanent supports as required for proper installation.

- H. Keep components and hands clean during installation. Remove adhesives, sealants and other stains. Keep clean until Substantial Completion. Replace stained components.
- I. Seal joints between simulated stone fabrications and adjacent surfaces with sealant.

3.03 CLEANING

- A. Comply with minimum requirements of Section 01 74 00 - Cleaning.
- B. Remove damaged, soiled, or otherwise disfigured portions and replace with new prior to final acceptance.
- C. Wash finished work in strict accordance with product manufacturer's directions and ensure that washed surfaces do not differ from clean unwashed portions. Any difference will be considered unsatisfactory work.

3.04 PROTECTION

- A. See Section 01 76 00 - Protecting Installed Work.
- B. Protect installed products until completion of project.
- C. Provide suitable protection for installed materials from damage that may be caused by construction procedures. Place protective covers over sinks to preclude their use until all construction practices have been completed and area is available for use.
- D. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION