

SECTION 12 36 40 – SIMULATED STONE COUNTERTOPS AND FABRICATIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide the work of this Section in accordance with requirements of the Contract Documents.
- B. Section Includes:
 - 1. Solid surface/quartz material **SS-0,1 SS-02, SS-03, SS-04.**
 - a. Backsplashes.
 - b. End splashes.
 - c. Sinks.

1.2 ACTION SUBMITTALS

- A. Product Data: Technical data for solid surface material countertop materials.
- B. Sustainable Design Submittals:
 - 1. Building Product Disclosure and Optimization - Sourcing of Raw Materials:
 - a. Extended Producer Responsibility (EPR): Submit documentation indicating that manufacturers have a take back or recycling program for the product purchased.
 - b. Recycled Content: For products having recycled content, indicate percentages by weight of post-consumer and pre-consumer recycled content.
 - 1) Include statement indicating costs for each product having recycled content.
 - 2. Indoor Environmental Quality, Low Emitting Materials: Building Products must be tested and compliant with the California Department of Public-Health (CDPH) Standard Method V1.1-2010 or v1.2 2017, using the applicable exposure scenario.
 - a. Adhesives and Sealants: For wet applied on-site products, submit printed statement showing compliance with the applicable chemical content requirements of SCAQMD Rule 1168, effective July 1, 2005, and rule amendment date of January 7, 2005.
- C. Shop Drawings: Submit shop drawings showing materials, finishes, edge and backsplash profiles, methods of joining, and cutouts for plumbing fixtures.
 - 1. Show locations and details of joints, anchors, and supports.
 - 2. Show direction of directional pattern, if any.
 - 3. Indicate sizes, dimensions, sections, and profiles.
- D. Samples:
 - 1. Solid surface/quartz material, 6 inches (150 mm) square.
 - 2. One full size solid surface material countertop, with front edge, backsplash, and end splash 8 inches by 10 inches (200 mm by 250 mm), of construction and in configuration specified.

1.3 INFORMATIONAL SUBMITTALS

A. Sustainable Design Submittals:

1. Building Product Disclosure and Optimization - Environmental Product Declarations

- a. Submit product specific type III EPDs or Industry wide (generic) EPDs, USGBC approved program declaration or products with a publicly available, critically reviewed life-cycle assessment conforming to ISO 14044 that have at least a cradle to gate scope.

2. Building Product Disclosure and Optimization - Material Ingredients

- a. Material Ingredient Reporting: Submit documentation confirming chemical inventory of products to at least 0.1 % (1000ppm) with at least one of the following:

- 1) Submit published manufacturer inventory of ingredients identified by name and Chemical Abstract Service Registration Number (CASRN)
- 2) Submit documentation that product has been certified as Cradle-to-Cradle v3 at the Bronze Level or better
- 3) Submit Declare product label indicating that all ingredients have been disclosed down to 1000 ppm or designated as Red List Free or Declared
- 4) Living Product Challenge
- 5) Product Lens Certification
- 6) USGBC approved program.

- b. Material Ingredient Optimization: Submit documentation confirming chemical inventory of products to at least 0.01 % (100ppm) and/or that has a compliant material ingredient optimization report with at least one of the following:

- 1) Submit GreenScreen V1.2 Benchmark: Third party report prepared by a licensed GreenScreen List Translator, or a full GreenScreen Assessment.
- 2) Submit third-party verified documentation that product has been certified as Cradle-to-Cradle v3 at the Bronze Level or better
- 3) Submit third-party verified Cradle to Cradle v3 Material Health certificate at the Bronze Level or better
- 4) Submit third-party verified Declare product label indicating that all ingredients have been disclosed down to 100 ppm
- 5) Submit third-party verified documentation that product is Living Product Challenge certified with a Red List Free or LBC Red List Free Declare label.
- 6) Submit documentation that product has a manufacturer prepared action plan with material inventory to at least 1000 ppm.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: Submit data for solid surface/quartz to include in maintenance manuals. Include Product Data for care products used or recommended by Installer and names, addresses, and telephone numbers of local sources for products.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop having minimum 5 years documented experience, that employs skilled workers who custom fabricate countertops similar to that required.

- B. Installer Qualifications: Fabricator of countertops.
- C. Mockups: Build mockups to demonstrate aesthetic effects and to set quality standards for fabrication and execution.
 - 1. Indicate portion of countertop represented by mockup on Drawings or draw mockup as separate element.
 - 2. Build mockup of typical countertop as indicated on Drawings.
 - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 COORDINATION

- A. Coordinate locations of utilities that will penetrate countertops or backsplashes.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver solid surface/quartz painting and similar operations have been completed in installation areas.
- B. Store solid surface/quartz in areas where environmental conditions comply with requirements.
- C. Keep surfaces of countertops covered with protective covering during handling and installation.

1.8 FIELD CONDITIONS

- A. Field Measurements: Verify dimensions of countertops by field measurements before countertop fabrication is complete.
- B. Established Dimensions: Where countertops are indicated to fit to other construction, establish dimensions for areas where wood countertops are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Solid Surface/Quartz Materials:
 - 1. Manufacturers:
 - a. Subject to compliance with requirements, provide products by one of the following:
 - 1) Caesarstone
 - 2) Cambria Quartz
 - 3) DuPont Corian Quartz.
 - 4) HanStone Silestone.
 - 5) Wilsonart Quartz.
 - 2. **SS-01:**
 - a. Basis of Design: Wilsonart Quartz Lorraine Q1012.

- 3. **SS-02:**
 - a. Basis of Design: DuPont Corian Quartz Cloud White.
- 4. **SS-03:**
 - a. Basis of Design: DuPont Corian Quartz Storm Gray
 - b. Finish: Polished.
- 5. **SS-04:**
 - a. Basis of Design: Silestone Quartz Rosa Gray 1201.
- B. Plywood: Exterior softwood plywood complying with DOC PS 1, Grade C-C Plugged, touch sanded.
- C. Low-Emitting Materials:
 - 1. Adhesives and Sealants wet-applied inside the weather-proofing system must meet the VOC general emissions testing criteria of CDPH Standard Method v1.2.
 - 2. All adhesives and sealants wet-applied inside the weather-proofing system must have VOC content in compliance with the applicable VOC limits (g/L) found in tables in Division 01 Section 01 81 13.14 "Sustainable Design Requirements - LEED v4 BD+C."

2.2 FABRICATION

- A. Fabricate countertops according to solid surface material manufacturer's written instructions and to the NAAWS (North American Woodwork Standards), latest publication.
 - 1. Aesthetic Grade: Premium.
 - 2. Performance Grade: Commercial.
- B. Configuration: Dimensions, profiles, and details indicated on drawings. Provide front and end overhang of 1 inch (25 mm) over base cabinets.
 - 1. Front: Straight, slightly eased at top
 - 2. Backsplash: Straight, slightly eased at corner.
 - 3. End Splash: Matching backsplash.
- C. Countertops: 1/2 inch (12.7 mm) thick, solid surface material with front edge built up with same material.
- D. Backsplashes and End splashes: 1/2 inch (12.7 mm) thick, solid surface material.
- E. Fabricate tops with shop applied edges and backsplashes unless otherwise indicated. Comply with solid surface material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.
 - 1. Fabricate with loose backsplashes for field assembly.
 - 2. Install integral sink bowls in countertops in the shop.
- F. Joints: Fabricate countertops in sections for joining in field, with joints at locations indicated.

1. Joint Locations: Not within 18 inches (450 mm) of a sink and not where a countertop section less than 36 inches (900 mm) long would result, unless unavoidable.
2. Splined Joints: Accurately cut kerfs in edges at joints for insertion of metal splines to maintain alignment of surfaces at joints where indicated, or approved by Architect. Make width of cuts slightly more than thickness of splines to provide snug fit. Provide at least three splines in each joint.

G. Cutouts and Holes:

1. Undercounter Plumbing Fixtures: Make cutouts for fixtures using template or pattern furnished by fixture manufacturer. Form cutouts to smooth, even curves.
 - a. Provide vertical edges, slightly eased at juncture of cutout edges with top and bottom surfaces of countertop and projecting 3/16 inch (5 mm) into fixture opening.
 - b. Provide vertical edges, rounded to 3/8 inch (10 mm) radius at juncture of cutout edges with top surface of countertop, slightly eased at bottom, and projecting 3/16 inch (5 mm) into fixture opening.
 - c. Provide 3/4 inch (20 mm) full bullnose edges projecting 3/8 inch (10 mm) into fixture opening.
2. Counter Mounted Plumbing Fixtures: Prepare countertops in shop for field cutting openings for counter mounted fixtures. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.
3. Fittings: Drill countertops in shop for plumbing fittings, undercounter soap dispensers, and similar items.

H. Installation Materials:

1. Adhesive: Product recommended by solid surface material manufacturer.
2. Sealant for Countertops: Comply with applicable requirements in Division 07, Section 07 92 00 "Joint Sealants".

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates to receive solid surface material fabrications and conditions under which countertops will be installed for compliance with requirements for installation tolerances and other conditions affecting performance of countertops.
- B. Proceed with installation after correcting unsatisfactory conditions.

3.2 INSTALLATION

- A. Installation Tolerances: Install countertops level to a tolerance of 1/8 inch in 8 feet (3 mm in 2.4 m), 1/4-inch (6 mm) maximum. Do not exceed 1/64-inch (0.4 mm) difference between planes of adjacent units.
- B. Countertops: Fasten countertops by screwing through corner blocks of base units into underside of countertop. Predrill holes for screws as recommended by manufacturer. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

1. Fasten subtops to cabinets by screwing through subtops into cornerblocks of base cabinets. Shim as needed to align subtops in a level plane.
2. Secure countertops to subtops with adhesive according to solid surface material manufacturer's written instructions. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.
3. Bond joints with adhesive and draw tight as countertops are set. Mask areas of countertops adjacent to joints to prevent adhesive smears.
 - a. Install metal splines in kerfs in countertop edges at joints where indicated, or approved by Architect. Fill kerfs with adhesive before inserting splines and remove excess immediately after adjoining units are drawn into position.
 - b. Clamp units to temporary bracing, supports, or each other to ensure that countertops are properly aligned and joints are of specified width.
4. Install backsplashes and end splashes by adhering to wall and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears.
5. Install aprons to backing and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears. Fasten by screwing through backing. Predrill holes for screws as recommended by manufacturer.
6. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts to prevent damage while cutting. Make cutouts to accurately fit items to be installed, and at right angles to finished surfaces unless beveling is required for clearance. Ease edges slightly to prevent snipping.
 - a. Seal edges of cutouts in plywood subtops by saturating with varnish.

- C. Apply sealant to gaps at walls; comply with Division 07, Section 07 92 00 "Joint Sealants".

3.3 ADJUSTING AND CLEANING

- A. Maintain installed work clean as work progresses. Leave finished work clean and free from blemishes.
- B. Repair damaged and defective countertops, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- C. Cleaning: Clean using a neutral cleaner recommended by countertop fabricator.
1. Clean countertops on exposed and semiexposed surfaces. Touch up shop applied finishes and restore damaged or soiled areas.
- D. Protection: Provide suitable covering over countertop surfaces, taped to underside of countertop at a minimum of 48 inches (1220 mm) on center.
- E. Remove protection at Substantial Completion.

END OF SECTION