

SECTION 06 61 19

QUARTZ SURFACING COUNTERTOP

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Quartz surfacing fabrication.

1.02 RELATED REQUIREMENTS

- A. Section 06 40 00 – Architectural Woodwork: Shop-fabricated custom casework.
- B. Section 12 30 00 – Casework: Manufactured casework.

1.03 REFERENCE STANDARDS

- A. ANSI Z124.6 – Plastic sinks; 2007.
 - 1. Section 5.2: Stain Resistance.
 - 2. Section 5.3: Wear and Cleanability.
 - 3. Section 5.4: Cigarette Test.
 - 4. Section 5.5: Chemical Resistance.
- B. ASTM C 97 – Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone; 2009.
- C. ASTM C 501 – Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser; 2009.
- D. ASTM C 650 - Standard Test Method for Resistance of Ceramic Tile to Chemical Substances; 2009.
- E. ASTM C 880 – Standard Test Method for Flexural Strength of Dimension Stone; 2009.
- F. ASTM C 1026 - Standard Test Method for Measuring the Resistance of Ceramic Tile to Freeze-Thaw Cycling
- G. ASTM C 1028 - Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method; 2007, Edition 1.
- H. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2010
- I. ASTM E 228 – Standard Test Method for Linear Thermal Expansion of Solid Materials with a Push-Rod Dilatometer; 2006.
- J. ASTM G 21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi; 2009.
- K. AWI (QCP) – Architectural Woodwork Standards (Quality Certification Program), www.awiqcp.org; current edition at www.awiqcp.org.
- L. AWMAC (GIS) – Architectural Woodwork Manufacturers Association of Canada (Guarantee and Inspection Services Program); current edition at www.awmac.com/gis.php.
- M. AWS (AWI/AWMAC/WI) - Architectural Woodwork Standards (Architectural Woodwork Institute / Architectural Woodwork Manufacturers Association of Canada / Woodwork Institute) (www.awinet.org - www.awmac.com - www.woodworkinstitute.com); Edition 1, 2009.
- N. MIA-DSDM – Marble Institute of America, Dimension Stone Design Manual; 2005.
- O. WI (CCP) – Woodwork Institute (Certified Compliance Program); current edition at www.woodworkinstitute.com/certification.
- P. WI (MCP) – Woodwork Institute (Monitored Compliance Program); current edition at www.woodworkinstitute.com/certification.

1.04 SUBMITTALS

- A. Comply with Section 01 30 00 – Administrative Requirements, for administrative and procedural requirements for processing of submittals during the construction phase.
- B. Product Data: Provide data on material characteristics, performance criteria and limitations, installation instructions, and cleaning and maintenance instructions.
- C. Shop Drawings: Provide complete detailed and dimensioned drawings combined with shop drawings of cabinets and casework specified in other sections showing fabrication details, edging, sink installation, coving, seams, fastener types and locations, use and type of sealant, and fabrication details for support brackets.
- D. Samples: Provide samples of colors as indicated on Drawings; submit [4 x 4 inch (102 x 102mm)] or [12 x 12 inch (300 x 300mm)] samples showing each color and finish.
 - 1. When colors are not indicated on Drawings, submit manufacturer's standard color book showing colors of actual material in greater than 1 1/2 inch (36mm) size.
 - 2. Upon selection of colors, submit samples as indicated above.
- E. Test Reports: Chemical resistance testing, showing compliance with specified requirements.
- F. Certificates: Certify that products meet or exceed specified requirements.
 - 1. Low emitting VOC.
 - 2. Does not support growth of mold, mildew and bacteria on surface.
- G. Sustainable Design Submittals:
 - 1. Submit invoices and documentation from manufacturer of the amounts of pre-consumer and post-consumer recycled content for products specified.
 - 2. Submit invoices and documentation showing manufacturing locations and origins of materials for products manufactured and sourced within 500 miles of project location.
- H. LEED Submittal: Documentation of recycled content and location of manufacture.
 - 1. LEED, MR Credit 4 – Recycled Content: Provide documentation for cost of products having recycled content indicating percentages by weight of postconsumer plus 1/2 of the preconsumer content.
 - 2. LEED, MR Credit 5 – Regional Materials: Provide documentation for cost of materials or products that have been extracted, harvested, or recovered and also manufactured within 500 miles of project site.
 - a. If only a portion of the materials or products is extracted, harvested, or recovered and manufactured locally, then only provide percentage by weight for credit value.

1.05 QUALITY ASSURANCE

- A. Fabricator Qualifications: [Same fabricator as for cabinets that tops are to be installed.] or [Approved by the cabinet manufacturer.]
- B. Quality Certification: Provide [AWI (QCP)] [WI (CCP)] [WI (MCP)] or [AWMAC (GIS)] inspection report and quality certification of completed work.
 - 1. Provide labels or certificates indicating that the work complies with requirements of AWS Grade or Grades specified.
 - 2. This project has been registered as AWI (QCP) project number [_____].
 - 3. Prior to delivery to the site provide shop drawings with certification labels.
 - 4. Provide labels on each product when required by certification program.
 - 5. Upon completion of installation provide certificate certifying that the installation and products meet the specified requirements.
 - 6. Arrange and pay for inspections required for certification.
 - 7. Replace, repair, or rework all work for which certification is refused.
- C. Installer Qualifications: Fabricator.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling: Store materials in clean, dry, interior area in accordance with manufacturer's instructions. Protect materials from damage during handling and installation.

1.07 AMBIENT CONDITIONS

- A. Maintain ambient temperature of 50 to 95 degrees F (10 to 35 degrees C) for 48 hours before, during and for minimum 7 days after installation.

1.08 WARRANTY

- A. Manufacturer Warranty: Submit manufacturer's standard 10 year warranty.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. OKITE: 12227 FM 529, Suite K, Houston, TX 77041.

2.02 QUARTZ SURFACING COUNTERTOPS

- A. Quality Standard: See Section [06 40 00] or [12 30 00].
- B. Quality Standard: [Premium Grade] [Custom Grade] or [Economy Grade] in accordance with AWS.
- C. Natural Quartz and Resin Composite Countertops: Non-porous blend of natural quartz, 93 percent, and polyester resin, 7 percent, formed into flat slabs [over continuous substrate] or [self-supporting over structural members].
 - 1. Overall Slab Size: 120 x 55 inches (3m x 1.4m).
 - 2. Flat Sheet Thickness: [25/32 inch (20mm)] [1/2 inch (13mm) Special Order] or [1 3/16 inch (30mm)].
 - 3. Slab Weight:
 - a. Slab – 1/2 Inch: 301 lbs (136.5 kg).
 - b. Slab – 25/32 Inch: 463 lbs (210 kg).
 - c. Slab – 1 3/16 Inch: 695 lbs (315 kg).
 - 4. Edge Detail: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
 - a. Surface Finish: [Polished (Standard)] or [Honed].
 - b. Color: [_____] [To be selected from manufacturer's standards] or [Custom color to be matched].
- D. Performance Criteria:
 - 1. Flexural Strength: 5,567.6 psi; ASTM C 880.
 - 2. Coefficient of Linear Thermal Expansion (Cole): 5.9×10^{-6} in/in/degrees F (1.1×10^{-5} in/in/degrees C); ASTM E 228.
 - 3. Water Absorption and Bulk Density: In accordance with ASTM C 97.
 - a. Water Absorption: 0.005 percent by weight.
 - b. Bulk Density: 39.03 gr/in³ (2.38 gr/cm³)
 - 4. Abrasion Resistance: ASTM C 501.
 - a. Abrasive Wear: 187.2.
 - b. Weight Loss (1,000 Cycles, 1,000 gr. Load, H-22 wheels): 0.47 gr.
 - 5. Resistance to Fungal Growth: Rating 0 (No Effect); ASTM G 21.
 - 6. Static Coefficient of Friction (SCOF): ASTM C1028.
 - a. Dry: 0.63.
 - b. Wet 0.57.
 - 7. Chemical Resistance: ASTM C 650.
 - a. 10 Percent - Hydrochloric Acid (HCL): No effect.
 - b. 10 Percent – Potassium Hydroxide (KOH): No effect.
 - 8. Flame Spread Test: 25 or less, Class A; ASTM E 84.
 - 9. Freeze-Thaw Cycling Resistance: No damages, non-porous, temperature cycle resistant material (15 Cycles); ASTM C1026.

10. Stain Resistance: 22 - Pass (64 = Passing); ANSI Z 124.6 Section 5.2.
11. Wear and Cleanability: Pass; ANSI Z 124.6, Section 5.3.
12. Cigarette Test: Pass; ANSI Z 124.6, Section 5.4.
13. Chemical Resistance: Pass; ANSI Z 124.6, Section 5.5.

2.03 FABRICATION

- A. Fabricate components to greatest extent practical in sizes and shapes as indicated and in accordance with MIA-DSDM.
 1. Inspect Quartz Surfacing prior to fabrication.
- B. Fabricate joints between components using manufacturer's recommended, color matched, joint adhesive, reinforce as required.
 1. Maximum Joint Width: 1/8 inch (3.2mm)
- C. Fabricate factory cutouts for plumbing fittings and bath accessories as indicated on the Drawings.
- D. Fabricate and finish routed edges of component with clean, sharp returns.
- E. Fabricate cutouts, radii and contours using template to ensure clean, sharp edges.
- F. Fabricate backsplash height and profile as indicated on the Drawings.
- G. Fabricate countertop components with finish as indicated.
- H. Cutouts for Sinks:
 1. Fabricate smooth and uniform without saw marks.
 2. Finish top and bottom of sink openings smooth.
 3. Provide at least 1/4 inch (6.4mm) radius at corners of sink cutouts.
 - a. Ease top and bottom of straight edge to avoid chipping.
- I. Provide insulation between countertop material and adjacent hot water pans and food warmers.
- J. Provide thermal isolation between hot and cold applications.
- K. Provide venting of cabinets as required.

2.04 FABRICATION TOLERANCE

- A. Panel Thickness Tolerance:
 1. Thickness of 3/8 to 1/2 Inch (9.5mm to 12.7mm): Plus or minus 1/32 inch (0.8mm).
 2. Thickness of 3/4 to 1 5/8 Inch (19mm to 41.3mm): Plus or minus 1/8 inch (3.2mm).
 3. Thickness Greater Than 1 5/8 Inch (41.3mm): Plus or minus 1/4 inch (6.4mm).
- B. Panel Face Dimension: Plus or minus 1/16 inch (1.6mm).
- C. Rectangular Face Variation (Maximum out of Square): Plus or minus 1/16 inch (1.6mm).
- D. Heads and Calibrated Edges: Plus or minus 1/16 inch (1.6mm).

PART 3 EXECUTION

3.01 VERIFICATION OF CONDITIONS

- A. Verify that field conditions are acceptable and are ready to receive this work.
- B. Verify dimensions by field measurements prior to installation.
- C. Inspect materials for defects prior to installation.
- D. Verify that substrates supporting quartz surfaces are plumb, level, square, and flat to within 1/8 inch in 10 feet and that all necessary supports and blocking are in place.
- E. Verify that related items provided under other sections are properly sized and located.

- F. Verify that built-in items (I.E. cabinets) are in proper location, secured, and ready for installation of this work.

3.02 INSTALLATION

- A. Install countertop materials in accordance with manufacturer's instructions and approved shop drawings
- B. Prepare Surface
1. Clean all surfaces prior to installation.
- C. Protection of Quartz Surfaces
1. Protect finished surfaces from scratches. Apply masking where necessary. Take necessary precautions to prevent dirt, grit, dust, and debris from other trades from coming into contact with the quartz surface.
- D. Preliminary Installation
1. Position materials to verify the correct size
 2. If size adjustments or additional fabrication is necessary, use water cooled tools. Protect jobsite and surface from dust and water. Perform work away from installation site if possible.
- E. Permanent Installation
1. Install components plumb and level and in accordance with approved shop drawings and installation details.
 2. After verification of fit, clean substrate; remove loose and foreign matter which may interfere with adhesion. Clean quartz surface backside & joints with approved solvent.
 - a. Tops: Within 1/8 inch (3.2mm) of a flat surface over a 10 foot (0.3m) length.
 - 1) Install with at least 1/16 inch (1.6mm) to at most 1/8 inch (3.2 mm) clearance between surface perimeter and wall.
 - 2) Apply continuous bead of mounting adhesive around perimeter of structural substrate and supports.
 - b. Sinks:
 - 1) Install undermount sinks or bowls to countertops using appropriate adhesive, sealant and mounting hardware.
 - 2) Install drop-in sinks or bowls to countertops using appropriate adhesive and color matched silicone sealant.
 - c. Backsplashes and Vertical Surfaces:
 - 1) Install backsplashes and endsplashes as indicated on the Drawings.
 - 2) Apply continuous bead of mounting adhesive around perimeter. In addition, apply ¼ inch mounting adhesive bead every 8 inches on vertical center.
 - 3) Adhere to countertops using appropriate adhesive and color matched silicone sealant.
 3. Install quartz surfacing plumb, level, square, and flat to within 1/8 inch in 10 feet, non-cumulative.
 - a. Align adjacent pieces in same plane.
 4. Interface with Other Work: Provide proper installation of other materials and work as necessary for a complete and properly functioning system
- F. Joints
1. Joints Between Adjacent Pieces of Quartz Surfacing
 - a. Joints shall be flush, tight fitting, level, and neat.
 - b. Securely join adjacent pieces with color matched Integra Adhesive. Refer to OKITE *Adhesive Cross Reference Chart* or contact Integra at 888.862.6665.
 - c. Fill joints level to polished surface.
 - d. Secure adjacent quartz surfaces with vacuum clamps until adhesive sets.
 2. Joints Between Quartz Surface and [backsplash] [wall] [tub] [shower] [other]:
 - a. Seal joints with approved color matched silicone sealant.

3.03 REPAIR

- A. Repair or replace damaged material in a satisfactory manner.

3.04 CLEANING

- A. Remove adhesives, sealants and other stains from surfaces in accordance with manufacturer's instructions.

B. Clean countertops prior to date of Substantial Completion.

3.05 PROTECTION

A. Protect surfaces from damage during construction until date of Substantial Completion, replace damaged work.

3.06 SCHEDULE

- A. Reception Areas: Type QRA – [____].
1. Location: Room [____].
 2. Surfaces adhesively joined, exposed seams.
 - a. Color: [Bianco Assoluto, No. 1665].
 - b. Finish: [_____].
 - c. Thickness: [25/32 inch] [1 3/16 inch] [Built up total thickness 1 1/2 inch].
 - d. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
- B. Nurse's Station: Type QNS – [____].
1. Location: Room [____].
 2. Surfaces adhesively joined, exposed seams.
 - a. Color: [Bianco Assoluto, No. 1665].
 - b. Finish: [_____].
 - c. Thickness: [25/32 inch] [1 3/16 inch] [Built up total thickness 1 1/2 inch].
 - d. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
- C. Countertops: Type QCT – [____].
1. Location: Room [____].
 2. Surfaces adhesively joined, exposed seams.
 - a. Color: [Bianco Assoluto, No. 1665].
 - b. Finish: [_____].
 - c. Thickness: [25/32 inch] [1 3/16 inch] [Built up total thickness 1 1/2 inch].
 - d. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
 - e. Sink: Model No. [_____] as manufactured by [_____].
 3. Backsplash and End Splashes: Surfaces adhesively joined, exposed seams.
 - a. Thickness: [25/32 inch] [1 3/16 inch].
 - b. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
- D. Bar Tops: Type QBT – [____].
1. Location: Room [____].
 2. Surfaces adhesively joined, exposed seams.
 - a. Color: [Bianco Assoluto, No. 1665].
 - b. Finish: [_____].
 - c. Thickness: [25/32 inch] [1 3/16 inch] [Built up total thickness 1 1/2 inch].
 - d. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
 - e. Sink: Model No. [_____] as manufactured by [_____].
 3. Backsplash and End Splashes: Surfaces adhesively joined, exposed seams.
 - a. Thickness: [25/32 inch] [1 3/16 inch].
 - b. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
- E. Cafeteria Surfaces:
1. Provide countertop expansion joints at locations and as detailed on the Drawings.
 2. Provide cut-outs to fit templates as furnished by the manufacturer.
 3. Comply with hot applications requirements as indicated under Fabrication article.
 4. Surfaces adhesively joined, exposed seams.
 - a. Color: [Bianco Assoluto, No. 1665].
 - b. Finish: [_____].
 - c. Thickness: [25/32 inch] [1 3/16 inch] [Built up total thickness 1 1/2 inch].
 - d. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
 - e. Sink: Model No. [_____] as manufactured by [_____].
 5. Backsplash and End Splashes: Surfaces adhesively joined, exposed seams.

- a. Color: [Bianco Assoluto, No. 1665].
 - b. Thickness: [25/32 inch] [1 3/16 inch].
 - c. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
- F. Vanity Tops / Bathroom Tops: Type QVT – [_____].
1. Location: Room [_____].
 2. Surfaces adhesively joined, exposed seams.
 - a. Color: [Bianco Assoluto, No. 1665].
 - b. Finish: [_____].
 - c. Thickness: [25/32 inch] [1 3/16 inch] [Built up total thickness 1 1/2 inch].
 - d. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
 - e. Sink: Model No. [_____] as manufactured by [_____].
 3. Backsplash and End Splashes: Surfaces adhesively joined, exposed seams.
 - a. Thickness: [25/32 inch] [1 3/16 inch].
 - b. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
- G. Windowsills: Type QWS – [_____].
1. Location: Room [_____].
 2. Surfaces adhesively joined, exposed seams.
 - a. Color: [Bianco Assoluto, No. 1665].
 - b. Finish: [_____].
 - c. Thickness: [25/32 inch] [1 3/16 inch] [Built up total thickness 1 1/2 inch].
 - d. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].
- H. Interior Steps: Type QST – [_____].
1. Location: Room [_____].
 2. Surfaces adhesively joined, exposed seams.
 - a. Color: [Bianco Assoluto, No. 1665].
 - b. Finish: [_____].
 - c. Thickness: [25/32 inch] [1 3/16 inch] [Built up total thickness 1 1/2 inch].
 - d. Edge Details: [Flat] [Ogee] [Bullnose] [Demi-Bullnose] [Bevel] [Ogee-Bullnose] or [_____].

END OF SECTION