



SECTION 06 61 19 QUARTZ SURFACING FABRICATIONS SECTION 12 36 61 QUARTZ SURFACING COUNTERTOPS

Part 1- General

1.0 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including general and supplementary conditions and Division 1 Specification Sections, apply to this section.

1.1 SUMMARY

- A. Section includes quartz surfacing for (includes, but not limited to):

1. Countertops.
2. Windowsills.
3. Vanity tops.
4. Tabletops.
5. Bar tops.
6. Seating.
7. Hot and cold cafeteria surfaces.
8. Interior steps.
9. Interior wainscoat & wall cladding.
10. Shower & bath enclosures.

- B. Related Sections include the following;

1. Administrative, procedural and temporary work requirements.
2. Division 5 Section **Metal Fabrication** for blocking.
3. Division 6 section **Rough Carpentry** for blocking.
4. Division 6 Section **Solid Surface Fabrications**.
5. Division 7 Section **Joint Sealers**.
6. Division 9 Section **Stone Flooring**.
7. Division 9 Section **Solid Surface Wall Cladding**.
8. Division 9 Section **Quartz Surface Wall Cladding**.
9. Division 10 **Quartz Surface Toilet Partitions**.
10. Division 15 **Plumbing Fixtures**.
11. Division 16 **Wiring Devices**.

1.2 REFERENCES

- A. ASTM International:

1. C97 Absorption and Bulk Specific Gravity of Dimension Stone.
2. C99 Modulus of Rupture of Dimension Stone.
3. C170 Compressive Strength of Dimension Stone.
4. C370 Moisture Expansion.
5. C501 Relative Resistance to Wear of Unglazed Tile to Taber Abraser.
6. C482 Bond Strength of Ceramic Tile to Portland Cement.



7. C484 Thermal Shock Resistance of Grazed Ceramic Tile.
8. C531 Linear Shrinkage and Coefficient of Thermal Expansion of Chemical - Resistant Mortars, Grouts, Monolithic Surfacing and Polymer Concrete.
9. C648 Breaking Strength of Ceramic Tile.
10. C1026 Resistance of Ceramic Tile to Freeze Thaw Cycling.
11. C1028 Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull Meter Method.
12. E84 Surface Burning Characteristics of Building Materials.
13. E662 Smoke Density.

B. American National Standards Institute (ANSI)

1. ANSI Z124.6 Stain Resistance
2. A108.5 Installation of Ceramic Tile with a Dry Set Portland Cement Mortar Latex Portland Cement Mortar.
3. A108.10- Installation of Grout in Tilework.
4. A118.4 - Latex-Portland Cement Mortar.
5. A118.6- Ceramic Tile Grouts.
6. A136.1- Lasers

1.3 SUBMITTALS

A. Product Data:

1. Quartz Surfacing; Submit manufacturer's product data.
2. Quartz Surfacing; Submit manufacturer's care and maintenance data.

B. Samples:

1. Submit two [___ x ___] inch quartz samples [showing available colors].

C. Adhesive:

1. Submit two [_____] samples of adhesive joint for each color quartz surface selected.

D. Shop Drawings:

1. Drawings to include countertop layout, dimensions, required locations of support and blocking members, edge profiles, cutouts and attachments.

E. Fabricator Qualifications:

1. Work of this section shall be performed by an approved fabricator/installer by the manufacturer.

1.4 QUALITY ASSURANCE

A. Mockup:

1. Construct mockup (if requested by Architect) [___] feet wide, full depth with backsplash, skirt. In addition, include plumbing fixtures and trim.
2. Approved mockup shall remain as part of the work.

B. Delivery, Storage and Handling:

1. Packaging, Shipping, Handling and Unloading; Observe manufacturer's recommendations and handle in a manner to prevent breakage. Brace parts if necessary. Transport in the near vertical position with finished face toward finished face. Do not allow finished surfaces to rub during shipping and



handling.

C. Storage and Protection:

1. Store in racks in near vertical position. Prevent warpage and breakage. Store inside away from direct exposure to sunlight. Store between 25 and 130° F.

D. LEED Credit Qualifications and Procedures: Provide materials compliant with the following requirements:

1. Low Emitting Materials: Certify materials as necessary to achieve LEED EQ Credit Point 4.1, 4.2, 4.3 and 4.4.

1.5 WARRANTY

A. Closeout Submittals:

1. Provide manufacturer's completed warranty form.

Part 2 - Products

2.1 MANUFACTURERS

A. Acceptable Manufacturer:

1. Cambria (no substitutions).

2.2 MATERIALS

A. Material:

1. Homogeneous mixture containing 93% pure quartz with additions of high performance polyester resin, pigments and special effects. Cambria is licensed to utilize Bretonstone™ technology and equipment used to compact and polish mixture, and is the only producer of quartz surfaces in the United States.

B. Thickness:

1. 1 cm.
2. 2 cm.
3. 3cm.

C. Identification:

1. Material shall be labeled with manufacturer's identifying mark.

D. Color: [_____] to be selected from Cambria color range.

E. Finish: [_____] to be selected from Cambria surface options.

F. Exposed Edges and Corners:

1. Countertops profile [_____].
2. Backsplash profile [_____].
3. Other Surface applications profile [_____].

G. Performance:

1. Moisture Absorption: typical results 0.02%; ASTM C97
2. Modulus of Rupture: typical results 6,800 psi; ASTM C99
3. Compressive Strength: typical results 24,750 psi; ASTM C170



4. Moisture Expansion: typical results <0.01; ASTM C370
5. Abrasion Resistance: typical results 223; ASTM C501
6. Bond Strength: typical results 205 psi; ASTM C482
7. Thermal Shock: passes 5 cycles: ASTM 484
8. Coefficient of Thermal Expansion: typical results 1.2×10^{-5} inch/°F; ASTM C531
9. Breaking Strength of Tile: typical results 3,661 lbf; ASTM C648
10. Resistance to Freeze Thaw Cycling: unaffected 15 cycles; ASTM C1026
11. Coefficient of Friction Pull Method: .75 avg. dry / .55 avg. wet; ASTM C1028
12. Surface Burning Characteristics: typical results 17; ASTM E84
13. Smoke Density: flaming 196, non-flaming 69; ASTM E662
14. Stain Resistance: Unaffected; ANSI Z124.6

2.3 ACCESSORIES

A. Mounting Adhesive:

1. Provide structural grade '50 year' silicone or epoxy adhesive.
2. Acceptable silicone manufactures:
 - a. [_____].
3. Acceptable epoxy manufactures:
 - a. Cambria Two Part Acrylic Adhesive.
 - b. Akemi North America.
 - c. Bonstone Material Corporation.
 - d. Tenax USA.

B. Quartz Surface Adhesive:

1. Provide epoxy or polyester adhesive of a type recommended by manufacturer for application and conditions of use.
2. Acceptable manufacturers:
 - a. Cambria Two Part Acrylic Adhesive.
 - b. Akemi North America.
 - c. Bonstone Material Corporation.
 - d. Tenax USA.
3. Adhesive which will be visible in finished work shall be tinted to match quartz Surface.

C. [Fasteners] [Grout] [Hardware]: [_____].

D. Joint Sealant:

1. Clear sealant of type recommended by manufacturer for application and use.
2. Provide anti-bacterial type in toilet, bath, food preparation, and [_____].
3. Acceptable manufacturers:
 - a. Dow Corning.
 - b. GE Sealants.
 - c. [_____].

E. Solvent: Denatured alcohol for cleaning quartz surfacing to assure adhesion of adhesives and sealants.

F. Cleaning Agents: Mild soap and water.



2.4 FABRICATION

A. Fabricator:

1. Fabricator shall be by a certified Fabricator, certified in writing by Manufacturer.

B. Layout:

1. Layout surface to minimize joints and avoid L-shaped pieces of quartz surfacing. Layout and fabricate with 'hairline' joints.

C. Inspection of Materials:

1. Inspect materials for defects prior to fabrication.

D. Tools: Cut and polish with water cooled powered tools.

E. Cutouts:

1. Cutouts shall have a minimum of 3/8 inch (10mm) radius.
2. Where edges of cutouts will be exposed in finished work; polish edges.

F. Laminations:

1. Laminate layers of quartz surfacing as required to create built up edges following procedures recommended by the manufacturer.

PART 3- EXECUTION

3.1 INSTALLER

- #### A. Installation shall be by a certified Installer, certified in writing by Manufacturer.

3.2 PRE-INSTALLATION EXAMINATION

A. Site Verification:

1. Verify dimensions by field measurements prior to installation.
2. Verify that substrates supporting quartz surfaces are plumb, level and flat to within 1/8 inch in 10 feet and that all necessary supports and blocking are in place.
3. [Base Cabinets shall be secured to adjoining units and back wall].

B. Inspection of Quartz Surfaces:

1. Inspect materials for defects prior to installation.

3.3 PREPARATION

A. Prepare Surface:

1. Clean surfaces prior to installation.

B. 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 contacting the surface.

3.4 INSTALLATION

- #### A. Install materials in accordance with manufacturer's instructions and approved



shop drawings.

B. 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.
3. Allow gaps for expansion of not less than 1/8 inch(1.5mm) per ten feet when installed between walls or other fixed structure.

C. Permanent Installation:

1. After verification of fit and finish, clean substrate; remove loose and foreign matter which may interfere with adhesion. Clean quartz surface backside & joints with denatured alcohol.
2. Horizontal surface: Apply continuous bead of mounting adhesive around perimeter of structural substrate and supports.
3. Vertical surface: Apply continuous bead of mounting adhesive around perimeter. In addition, apply ¼ inch mounting adhesive bead every 8 inches on vertical center.
4. [Fasteners, Grout and Hardware].
5. Install quartz surfacing plumb, level, square and flat to within 1/8 inch in ten Feet, non-cumulative.
6. Align adjacent pieces in same plane.

D. 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 Cambria Two Part Acrylic Adhesive.
 - c. Fill joints level to polished surface.
 - d. Secure adjacent quartz surfaces with vacuum clamps until adhesive hardens.
2. Joints Between Quartz Surface and [back splash] [wall] [tub] [shower] [other]:
 - a. Seal joints with '50' year silicone sealant.

3.5 REPAIR

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

3.6 CLEANING

- A. Remove masking, excessive adhesive and sealants. Clean exposed surfaces with denatured alcohol.

3.7 PROTECTION

- A. Protect installed fabrications with non-staining sheet coverings.

3.8 SCHEDULES

- A. [site and job specific].



C A M B R I A[®]

Natural Quartz Surfaces™

CSI GUIDE

End of section