

SECTION 12 3661.19
QUARTZ SURFACING COUNTERTOPS

This Section specifies “Wilsonart® Quartz” surfacing countertops produced by Wilsonart LLC. Wilsonart Quartz is a quartz agglomerate nonporous surfacing material available in over 45 stunning colors and patterns showcasing the full range of design styles possible. This product line utilizes state-of-the-art Bretonstone® System manufacturing to produce the highest quality quartz surfacing. Wilsonart Quartz is designed for interior use only and ideally suited for residential and commercial applications.

Wilsonart Quartz is highly resistant to stains, impervious to moisture, does not require sealing, and conforms to FDA requirements for food preparation areas. LEED-CI points are available for the Commercial Interiors category. Wilsonart Quartz has attained GREENGUARD Gold Certification from UL Environment for low chemical emissions into indoor air during product usage.

A unique design enhancement is the wide array of edge profile choices, including curved, beveled, sculpted, and layered edges, as design solutions.

Wilsonart offers a 10 year Commercial Limited Warranty for material defects.

Section Editing: Informational notes will appear as “Editing Note” text boxes throughout this Section. Bracketed bold text will require a selection to be made.

- GENERAL

1.01 SECTION INCLUDES

EDITING NOTE: Revise listing to suit Project requirements.

- A. Quartz agglomerate surfacing countertops.
- B. Quartz agglomerate backsplashes.
- C. Quartz agglomerate endsplashes.
- D. Quartz agglomerate vanities.
- E. Quartz agglomerate window sills
- F. Adhesives and sealants.

1.02 RELATED REQUIREMENTS

EDITING NOTE: Section listings below are common references and based on the broadly accepted CSI MasterFormat® for Section numbers and titles. Revise to suit requirements for particular project.

- A. Section 01 3000 - Submittals.
- B. Section 01 7800 - Closeout Submittals.
- C. Section 05 5000 - Metal Fabrications.
- D. Section 06 1000 - Rough Carpentry.

- E. Section 06 6116 - Solid Surfacing Fabrications.
- F. Section 07 9200 - Joint Sealants.
- G. Section 12 3623 - Plastic-Laminate-Clad Countertops.
- H. Section 12 3661 - Solid Surfacing Countertops.
- I. Section 22 4116 - Residential Lavatories and Sinks.

1.03 REFERENCES

EDITING NOTE: Revise Reference Standards to suit project requirements.

- A. Reference Standards:
 - 1. ASTM C 97: Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone.
 - 2. ASTM C 170: Standard Test Method for Compressive Strength of Dimension Stone.
 - 3. ASTM C 501: Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic tile by the Taber Abraser.
 - 4. ASTM C 834: Standard Specification for Latex Sealants.
 - 5. ASTM C 920: Standard Specification for Elastomeric Joint Sealants.
 - 6. ASTM D 790: Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 - 7. ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials
 - 8. LEED: Leadership in Energy and Environmental Design.
 - 9. NEMA LD-3: High Pressure Decorative Laminates.
 - 10. NSF/ANSI Standard 51: Food Equipment Materials.
 - 11. ISO: International Organization for Standardization.
 - 12. ISO 9001: Quality Management Systems.
 - 13. SCAQMD Rule 1168: Adhesive and Sealant Applications.
 - 14. UL 2818: GREENGUARD Certification Program for Chemical Emissions for Building Materials, Finishes and Furnishings.

1.04 SUBMITTALS

- A. Submit under provisions of Section 01 3000 - Submittals.
- B. Product Data:
 - 1. Submit product data for each specified product. Include manufacturer's technical data sheets and published instruction instructions.
 - 2. Submit Safety Data Sheets (SDS) for adhesives and sealants.
- C. Shop Drawings:
 - 1. Submit fully dimensioned shop drawings showing countertop layouts, **[backsplashes,] [endsplashes,] [vanities,] [window sills,]** joinery, edge conditions, terminations, substrate construction, cutouts and holes. Show plumbing installation provisions. Include elevations, section details, and large scale details.

- D. Samples:
 - 1. Submit selection and verification samples for each color and pattern required.
- E. Quality Assurance Submittals:
 - 1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties, if required.
 - 2. LEED Submittals: Submit applicable LEED documentation for potential credits specified in this Section.
 - 3. Warranty: Specimen copy of specified warranty.
- F. Closeout Submittals:
 - 1. Maintenance Data: Submit manufacturer's published Care & Maintenance manual with closeout submittals.

1.05 REGULATORY REQUIREMENTS

- A. Accessibility Requirements: Comply with the U.S. Architectural & Transportation Barriers Compliance Board ADA-ABA Accessibility Guidelines for Buildings and Facilities.
- B. Adhesives, Sealants, and Sealant Primers:
 - 1. SCAQMD (South Coast Air Quality Management District) Rule 1168.

1.06 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturing Facility Qualifications: Quartz surfacing materials produced in an ISO 9001 certified facility.
 - 2. Fabricator Qualifications: Minimum of five years documented experience in fabricating quartz surfacing countertops similar in scope and complexity to this Project, using water-cooled cutting tools. Currently certified by the manufacturer as an acceptable fabricator.
 - 3. Installer Qualifications: Minimum of five years documented installation experience for projects similar in scope and complexity to this Project, and currently certified by the manufacturer as an acceptable installer. **[Installer shall be the fabricator].**

EDITING NOTE: Following LEED paragraph offers a potential credit according to LEED 2009 for Commercial Interiors (LEED-CI). Coordinate with designated LEED AP for credit applicable to Project.

- B. LEED 2009 rating system potential credits for adhesives:
 - 1. LEED-CI IEQ Credit 4.1 Low-Emitting Materials - Adhesives and Sealants.

C. Mock-Ups:

EDITING NOTE: Revise mock-up size and location to suit Project requirements.

1. Install at Project using acceptable products and manufacturer approved installation methods. Obtain Architect's acceptance of color, pattern, finish, fabrication, and installation standards.
2. Mock-Up Size: [] by [].
3. Mock-Up Size: Indicated on Drawings.
4. Mock-Up Location: **[Indicated on Drawings] [As directed by Architect]**.
5. Maintain mock-up during construction for fabrication and installation comparison. If required, remove and legally dispose of mock-up when no longer required.
6. Incorporation: If permitted by Architect, mock-up may be incorporated into as part of the completed Work.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Handling: Comply with manufacturer's recommendations for shipping and handling quartz surfacing materials to preclude breakage or damage. Brace quartz surfacing units as necessary during shipment, transporting in near-vertical position with finished face towards finished face. Do not allow finished surfaces to rub during shipping and handling.
- B. Storage and Protection: Store materials protected from exposure to harmful weather conditions, at temperature and humidity conditions recommended by manufacturer. Store quartz surfacing sheet materials on racks in near-vertical position to preclude damage. Store with finished face turned towards finished face. Prevent warpage and breakage.

1.08 PROJECT CONDITIONS

- A. Field Measurements: Verify actual measurements and openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.
- B. Adhesive: Acclimate adhesives to occupancy room temperatures with maximum temperature not to exceed 75 deg F.

1.09 WARRANTY

- A. Manufacturer's Limited Warranty: Provide manufacturer's standard 10 Year Commercial and Residential Limited Warranty against defects in quartz surfacing sheet materials.

- PRODUCTS

EDITING NOTE: Full Contact Information: Wilsonart, 2501 Wilsonart Drive, Temple, TX 76503-6110. Tel. 254.207.7000, Toll-Free 800.433.3222, Fax 254.207.2384. Websites are:
www.wilsonart.com (primary website)
www.wilsonart.com/sustainability (sustainability website)

1.10 MANUFACTURER

- A. Basis of Design: Wilsonart.

1.11 QUARTZ SURFACING SHEET MATERIAL

- A. Acceptable Product: "Wilsonart Quartz."
- B. Composition: Up to 93 percent quartz aggregate combined with polyester resin binders and proprietary pigments that are fabricated into slabs using vacuum vibrocompaction technology.

EDITING NOTE: Quartz sheet material is available in 2 cm and 3 cm thicknesses. Minimum slab size for countertop units is 55 inches by 120 inches. Retain vanity dimensions and/or window sill dimensions if required for Project.

- C. Material Thickness: **[Product Type 062 - 0.79 inch (2 cm)] [Product Type 063 - 1.18 inch (3 cm)]**, nominal.
- D. Material Weight: **[10 lbs./ft² for 2 cm thick surfacing] [15 lbs./ft² for 3 cm thick surfacing]**.
- E. Countertop Dimensions: **[[_____] inches wide by [_____] inches deep] [Indicated on Drawings] [Specified in SCHEDULE Article of this Section]**.
- F. Vanity Dimensions: **[[_____] inches wide by [_____] inches deep] [Indicated on Drawings] [Specified in SCHEDULE Article of this Section]**.
- G. Window Sill Dimensions: **[[_____] inches wide by [_____] inches deep] [Indicated on Drawings] [Specified in SCHEDULE Article of this Section]**.
- H. Conformance Standards:
1. NSF/ANSI Standard 51.
 2. UL 2818:
 - a. GREENGUARD - Emission levels in UL 2818, Section 7.1 are applicable for furniture products.
 - b. GREENGUARD Gold - Emission levels in UL 2818, Section 7.2 are applicable for building materials, finishes, and furnishings.
- I. Physical Characteristics:
1. Flexural Strength: Greater than 4,500 psi; ASTM D 790.
 2. Flexural Strain: Less than 0.375 percent; ASTM D 790.
 3. Flexural Modulus: Greater than 3.75 MPsi; ASTM D 790.
 4. Stain Resistance (24 Hour): No effect to moderate effect; NEMA LD-3.
 5. Abrasion Resistance: Greater than 100 in.-lbs.; ASTM C 501.
 6. Density: Greater than 2.1 g/cm³; ASTM C 97.
 7. Compressive Strength (One Axis - Dry): Greater than 20,000 psi; ASTM C 170.
 8. Moisture Absorption: Maximum 0.022 percent; ASTM C 97.
- J. Quartz Finish: Polished finish with Glossometer reading greater than 45.

EDITING NOTE: Select color and pattern from one of the following options. Wilsonart offers color and pattern choices in four styles to provide an enhanced range of design statements. These styles are Fine/Small, Medium, Large, and Veining/Movement. Design idioms ranging from minimalist and subtle interpretations to terrazzo and classic marble looks can be achieved. Refer to Wilsonart website for additional information.

- K. Color and Pattern: [_____].
- L. Color and Pattern: Specified in SCHEDULE Article of this Section.
- M. Color and Pattern: Indicated on Drawings.
- N. Color and Pattern: Selected from manufacturer's standard offerings.

EDITING NOTE: Select edge detail from one of the following options. Wilsonart offers a variety of edge design options, including straight, radiused, beveled, and sculpted profiles.

- O. Edge Detail: **[Straight] [1/4" Radius] [1/2" Bullnose] [Demi Bullnose] [Full Bullnose] [1/4" Round T&B] [1/4" Bevel] [1/2" Bevel] [Bevel] [Ogee] [Deep Ogee] [Waterfall] [_____]**.
- P. Edge Detail: Specified in SCHEDULE Article of this Section.
- Q. Edge Detail: Indicated on Drawings.
- R. Edge Detail: Selected from manufacturer's standard offerings.

2.03 ACCESSORY MATERIALS

- A. Joint Adhesive: Methacrylate-based adhesive for chemically bonding quartz surfacing seams. Color complementary to quartz surfacing sheet material. UL 2818 GREENGUARD Gold certified and complies with SCAQMD Rule 1168.
 - 1. Basis of Design: "Wilsonart Hard Surface Adhesive."
 - 2. Other Acceptable Products: Pigmented knife grade adhesives suitable for use with quartz surfacing are also acceptable.
- B. Elastomeric Sealant: Mildew-resistant silicone sealant for filling gaps between countertops and terminating substrates in wet environment applications. Complies with ASTM C 920, Type S (single component), Grade NS (nonsag).
 - 1. Product: Acceptable to countertop manufacturer.
 - 2. Color: **[Complementary to quartz surfacing color] [Clear] [Selected from sealant manufacturer's standard offerings]**.
- C. Siliconized Acrylic Sealant: Siliconized acrylic latex sealant. For general applications to fill gaps between countertops and at terminating substrates. Complies with ASTM C 834, Type OP, Grade NF, and SCAQMD Rule 1168.
 - 1. Product: "Wilsonart Color Matched Caulk".
 - 2. Color: **[Complementary to quartz surfacing color] [Clear] [Selected from sealant manufacturer's standard offerings]**.

- D. Construction Adhesive: Countertop manufacturer's recommended silicone-based construction adhesive for backsplashes, endsplashes, and other applications according to manufacturer's published fabrication instructions.

2.04 FABRICATION

- A. Fabricate components in shop, to greatest extent practicable, in sizes and shapes indicated according to approved shop drawings and Wilsonart Quartz Fabrication Manual.
- B. Form joint seams between quartz surfacing components with specified seam adhesive. Completed joints inconspicuous in appearance and without voids. Provide joint reinforced if required by manufacturer for particular installation conditions.
- C. Provide holes and cutouts for plumbing fixtures and accessories indicated on approved shop drawings. Rout cutouts and finish edges smooth.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates and conditions that could adversely affect the work of this Section.
- B. Substrates must be sound, flat, smooth, and free from dust or other surface contaminants.
- C. Commencement of work will constitute acceptance of substrates and conditions to receive the work.

3.02 COUNTERTOP [AND VANITY] INSTALLATION

- A. Install quartz surfacing components plumb, level, and true according to approved shop drawings and manufacturer's published installation instructions. Use woodworking and specialized fabrication tools acceptable to manufacturer.
 - 1. Fasten quartz surfacing components to base cabinets or other supporting substrates with suitable adhesives acceptable to manufacturer.
- B. Form joint seams with specified seam adhesive. Seams to be inconspicuous in completed work. Seams in locations shown on approved shop drawings and acceptable to manufacturer. Promptly remove excess adhesive.
 - 1. Clamp or brace quartz surfaces in position until adhesive sets.
- C. Fill gaps between countertop and terminating substrates with specified silicone sealant.
- D. Install backsplashes and endsplashes where indicated on Drawings. Adhere to countertops with specified construction adhesive.

EDITING NOTE: Delete following paragraph if vanities are not a Project requirement.

- E. Vanities: Secure front panels to solid substrate with specified construction adhesive.
 - 1. ADA Vanities: Angled front to permit wheelchair access to comply with

referenced accessibility standard.

EDITING NOTE: Delete following Article if window sills are not a Project requirement.

3.03 WINDOW SILL INSTALLATION

- A. Install window sills for full length of each window unit, securing to substrates with concealed fasteners and specified adhesive.
- B. Provide minimum 1/8 inch expansion gap on both sides of window sills. Fill gap with specified joint sealant.
- C. Completed work to be plumb, level, and true, with edges eased and smooth.

3.04 REPAIRS

- A. If permissible to Architect, minor surface marring for quartz surfacing components may be repaired according to manufacturer's published installation instructions.
- B. Remove and replace quartz surfacing components that are damaged and cannot be satisfactorily repaired.

3.5 CLEANING AND PROTECTION

- A. Clean quartz surfacing components according to manufacturer's published maintenance instructions. Completely remove excess adhesives and sealants from finished surfaces.
- B. Protect completed work from damage during remainder of construction period.

3.05 SCHEDULE

EDITING NOTE: Schedule for quartz surfacing countertops may be inserted here if not indicated on Drawings or in Finish Schedule.

END OF SECTION 12 3661.19