

SECTION 12 3661.19

QUARTZ SURFACING COUNTERTOPS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Quartz agglomerate surfacing countertops. B. Quartz agglomerate backsplashes.
- C. Quartz agglomerate endsplashes.
- D. Adhesives and sealants.

1.02 REFERENCES

- 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. NSF/ANSI Standard 51: Food Equipment Materials.
 - 8. ISO: International Organization for Standardization.
 - 9. ISO 9001: Quality Management Systems.
 - 10. SCAQMD Rule 1168: Adhesive and Sealant Applications.

1.03 SUBMITTALS

- A. Product Data:
 - 1. **Submit product data for each specified product. Include manufacturer's technical data sheets**
 - 2. Submit Safety Data Sheets (SDS) for adhesives and sealants.
 - 3. Shop Drawings: Submit fully dimensioned shop drawings showing countertop layouts, backsplashes, endsplashes, joinery, edge conditions, terminations, substrate construction, cutouts and holes. Show plumbing installation provisions. Include elevations, section details, and large scale details.
- B. Samples: Submit selection and verification samples for each color and pattern required.
- C. Quality Assurance Submittals:
 - 1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties, if required.
 - 2. Warranty: Copy of specified warranty.
 - 3. Closeout Submittals: Submit manufacturer's published Care & Maintenance manual with closeout submittals.
 - 4. Maintenance Data: Submit manufacturer's published Care & Maintenance manual with closeout submittals.

1.04 REGULATORY REQUIREMENTS

- A. Adhesives, Sealants, and Sealant Primers:

1.05 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.

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.

PART 2 – PRODUCTS

2.01 MANUFACTURER

- A. Basis of Design: Wilsonart.
- B. Other acceptable manufacturers include but are not limited to:
 - 1. Cambria
 - 2. Ceasarstone
 - 3. HanStone
 - 4. Silestone
 - 5. Avanza

2.02 QUARTZ SURFACING SHEET MATERIAL

- A. Composition: 90+ percent quartz aggregate combined with polyester resin binders and proprietary pigments that are fabricated into slabs using vacuum vibrocompaction technology.
- B. Material Thickness of Countertops: 1-1/4"
- C. Conformance Standards:
 - 1. NSF/ANSI Standard 51.
 - 2. UL 2818:
- D. 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.
- E. Quartz Finish: Polished finish with Glossometer reading greater than 45.
- F. Color and Pattern: Selected from manufacturer's standard offerings.
- G. 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
 - 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
- 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.
 - 1. Product: "Wilsonart Color Matched Caulk" or equal.
 - 2. Color: Complementary to quartz surfacing color.
- 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 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.

3.04 REPAIRS

- A. If permissible to Owner, 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.