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Guide Specification

Specifier Notes: This guide specification is written in Construction Specifications Institute (CSI) 3-Part Format in accordance with *The CSI Construction Specifications Practice Guide, MasterFormat, SectionFormat,* and *PageFormat.*

This Section must be carefully reviewed and edited by the Architect to meet the requirements of the Project and local building code. Coordinate this Section with Conditions of the Contract, Division 01, other specification sections, and the Drawings. Delete all Specifier Notes after editing this Section.

Section numbers and titles are based on *MasterFormat 2016 Edition.*

SECTION 06 61 13

SIMULATED STONE FABRICATIONS

Specifier Notes: This Section covers Vicostone quartz surfacing fabrications. Consult Vicostone for assistance in editing this Section as required for the Project.

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Quartz Surfacing Fabrications:

Specifier Notes: List the types of quartz surfacing fabrications specified in this Section.

1. _____.
2. _____.
3. _____.

1.2 RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as required for the Project. Limit the list to sections with specific information that the reader might expect to find in this Section, but is specified elsewhere.

A. Section 06 10 00 – Rough Carpentry: Blocking and supports.

B. Section 07 92 00 – Joint Sealants.

C. Section 12 36 61.19 – Quartz Agglomerate Countertops.

D. Section _____ – _____.

E. Section _____ – _____.

1.3 DEFINITIONS

A. Manufacturer:
   1. Manufactures quartz slabs to specified size, thickness, finish, and color.
   2. Delivers slabs to fabricator for shop fabrication of quartz surfacing fabrications.

B. Fabricator:
   1. Receives quartz slabs from manufacturer.
   2. Shop fabricates quartz surfacing fabrications to required dimensions and specified requirements for installation by installer.

1.4 REFERENCE STANDARDS

Specifier Notes: List reference standards used elsewhere in this Section, complete with designations and titles. Delete reference standards from the following list not used in the edited Section.

A. Architectural Woodwork Institute / Architectural Woodwork Manufacturers Association of Canada / Woodwork Institute (www.awinet.org / www.awmac.com / www.woodworkinstitute.com/asserrata.com):
   1. AWI/AWMAC/WI Architectural Woodwork Standards.

B. ASTM International (ASTM) (www.astm.org):
   1. ASTM C 97/C 97M – Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone.
   2. ASTM C 170/C 170M – Standard Test Method for Compressive Strength of Dimension Stone.
   3. ASTM C 880/C 880M – Standard Test Method for Flexural Strength of Dimension Stone.
   4. ASTM C 1026 – Standard Test Method for Measuring the Resistance of Ceramic and Glass Tile to Freeze-Thaw Cycling.
   5. ASTM C 1243 – Standard Test Method for Relative Resistance to Deep Abrasive Wear of Unglazed Ceramic Tile by Rotating Disc.

6. ASTM D 1709 – Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method.
7. ASTM D 6329 – Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers.

C. The European Committee for Standardization (CEN):
1. DIN 51130 – Testing of floor coverings - Determination of the anti-slip property - Workrooms and fields of activities with slip danger - Walking method - Ramp test.
2. EN 101 – Ceramic floor and wall tiles - Determination of scratch hardness of surface according to Mohs.
3. EN 14617-1 – Agglomerated stone - Test methods - Part 1: Determination of apparent density and water absorption.
4. EN 14617-2 – Agglomerated stone - Test methods - Part 2: Determination of flexural strength (bending).
5. EN 14617-4 – Agglomerated stone - Test methods - Part 4: Determination of the abrasion resistance.
6. EN 14617-5 – Agglomerated stone - Test methods - Part 5: Determination of freeze and thaw resistance.
7. EN 14617-6 – Agglomerated stone - Test methods - Part 6: Determination of thermal shock resistance.
8. EN 14617-9 – Agglomerated stone - Test methods - Part 9: Determination of impact resistance.
9. EN 14617-10 – Agglomerated stone - Test methods - Part 10: Determination of chemical resistance.
10. EN 14617-12 – Agglomerated stone - Test methods - Part 12: Determination of dimensional stability.
11. EN 14617-13 – Agglomerated stone - Test methods - Part 13: Determination of electrical resistivity.
12. EN 14617-15 – Agglomerated stone - Test methods - Part 15: Determination of compressive strength.

D. International Living Future Institute (ILFI) (www.living-future.org):
1. Living Building Challenge Criteria – LBC Compliant.

E. International Organization for Standardization (ISO) (www.iso.org):
1. ISO 4586-2 – High-pressure decorative laminates - Sheets made from thermosetting resins Part 2: Determination of properties.
2. ISO 9001 – Quality management systems – Requirements.
3. ISO 14001 – Environmental management systems – Requirements with guidance for use.

F. NSF International (NSF) (www.nsf.org):
1. NSF/ANSI 51 – Food Equipment Materials.

G. Standards Australia International (SAI) (www.standards.org.au):
1. SAA AS/NZS 2924.2 – High-Pressure Decorative Laminates - Sheets Made from Thermosetting Resins Part 2: Determination of Properties.

H. UL (www.ul.com):
1. UL 2818 – GREENGUARD Certification Program For Chemical Emissions For Building Materials, Finishes And Furnishings.

2. UL/GREENGUARD Certification, Product Certified for Low Chemical Emissions, UL 2818.
3. UL/GREENGUARD Gold Certification, Product Certified for Low Chemical Emissions, UL 2818.

1.5 PREINSTALLATION MEETINGS

Specifier Notes: Edit the Preinstallation Meetings article as required for the Project. Delete this article if not required.

A. Convene preinstallation meeting [1 week] [2 weeks] before start of installation of quartz surfacing fabrications.

B. Require attendance of parties directly affecting Work of this Section, including Contractor, Architect, installer, and manufacturer's representative.

C. Review the Following:
1. Materials.
2. Examination.
3. Preparation.
4. Installation.
5. Tolerances.
6. Adjusting.
7. Cleaning.
8. Protection.
9. Coordination with other Work.

1.6 SUBMITTALS

Specifier Notes: Edit the Submittals article as required for the Project. Delete submittals not required.

A. Submittals: Comply with Division 01.

B. Product Data: Submit manufacturer's product data, including preparation and installation instructions.

C. Shop Drawings: Submit manufacturer's shop drawings indicating:
1. Dimensions, tolerances, materials, components, attachments, fabrication, fasteners, hardware, and location of seams.
2. Edge details and profiles.
3. Locations and sizes of cutouts and holes.
4. Locations and sizes of blocking, supports, and reinforcements to support quartz surfacing fabrications.

D. Samples: Submit manufacturer's sample chips of quartz surfacing material.

E. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.

F. Test Reports: Submit manufacturer's test reports from testing performed by qualified, independent testing laboratories.

G. Manufacturer's Project References: Submit manufacturer's list of 10 successfully completed quartz slab projects of similar size and scope to this Project, including project name and location, name of architect, and type and quantity of quartz slabs manufactured.

H. Fabricator's Project References: Submit fabricator's list of 10 successfully completed quartz surfacing fabrication projects of similar size and scope to this Project, including project name and location, name of architect, and type and quantity of quartz surfacing fabrications fabricated.

I. Installer's Project References: Submit installer's list of 5 successfully completed quartz surfacing fabrication projects of similar size and scope to this Project, including project name and location, name of architect, and type and quantity of quartz surfacing fabrications installed.

J. Care and Maintenance Instructions: Submit manufacturer's care and maintenance instructions, including cleaning and repairing instructions.

K. Warranty Documentation: Submit manufacturer's standard warranty.

1.7 QUALITY ASSURANCE

A. Manufacturer's Qualifications:
   1. Manufacturer regularly engaged in the manufacturing of quartz slabs of similar type to that specified for a minimum of 5 years.
   2. Certified:
      a. ISO 9001.
      b. ISO 14001:2004.
   3. Use Breton Technology equipment.

B. Fabricator's Qualifications: Fabricator regularly engaged in the fabrication of quartz surfacing fabrications of similar type to that specified for a minimum of 5 years.

C. Installer's Qualifications:
   1. Installer regularly engaged in installation of quartz surfacing fabrications of similar type to that specified for a minimum of 5 years.
   2. Use persons trained for installation of quartz surfacing fabrications.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Delivery Requirements: Deliver quartz surfacing fabrications to site in accordance with manufacturer's instructions.

B. Storage and Handling Requirements:
   1. Store and handle quartz surfacing fabrications in accordance with manufacturer's instructions.
   2. Store quartz surfacing fabrications vertically in clean, dry area indoors, raised above floor.
   3. Protect quartz surfacing fabrications during storage, handling, and installation from dirt, stains, scratches, cracks, and other damage.

4. Protect edges and corners from damage.
5. Do not store or transport quartz surfacing fabrications flat.
6. Do not drop or drag quartz surfacing fabrications.

1.9 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.

1.10 WARRANTY

A. Warranty Period:
   1. Commercial: 10-year limited warranty.
   2. Residential: 15-year limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Manufacturer: Vicostone, 11620 Goodnight Lane, Suite 100, Dallas, Texas 75229. Phone 972-243-2325. Fax 972-243-4197. www.us.vicostone.com. info@vicostoneus.com.

Specifier Notes: Specify if substitutions will be permitted.

B. Substitutions: [Not permitted] [Comply with Division 01].

C. Single Source: Provide materials from single manufacturer.

2.2 QUARTZ SURFACING FABRICATIONS

A. Quartz Surfacing Fabrications: “Vicostone” quartz surfaces.

B. Material:
   1. Quartz-based engineered stone.
      a. Body: Quartz aggregates and silica sand, maximum 93 percent.
      b. Binder: Polyester resin.
      c. Colorant: Color powder pigments.
   2. Formed into flat slabs.
   3. Solid and uniform throughout material thickness.
   4. Nonporous.
   5. Indoor use.

C. Certifications:
   1. UL/GREENGUARD Certification, Product Certified for Low Chemical Emissions, UL 2818.
   2. UL/GREENGUARD Gold Certification, Product Certified for Low Chemical Emissions, UL 2818.
   3. NSF/ANSI 51, certified for food safety.
   4. Certified for use with kosher food.

D. ILFI Living Building Challenge:
   1. Declaration Status: LBC Compliant.

Specifier Notes: Specify slab dimensions and thickness. Consult Vicostone for availability of standard and custom slab dimensions and thicknesses for selected colors.

E. Slab Dimensions: _____ cm by _____ cm.

F. Slab Thickness: [1.2 cm] [2 cm] [3 cm] [_____ cm].

Specifier Notes: Specify factory finish. Consult Vicostone for availability of factory finishes for selected colors.

G. Factory Finish: [High-gloss polish] [Honed] [Brushed] [Eggshell].

H. Color:

Specifier Notes: Specify color name and code. Consult Vicostone for full selection of available colors.

   1. Name: _____.
   2. Code: _____.

I. Edges and Corners:

Specifier Notes: Specify exposed edges and outside corners.

   1. Exposed Edges: [Square] [_____].
   2. Outside Corners: [Square butt joints] [_____].

J. Test Results:
   1. Water Absorption:
      a. ASTM C 97/C 97M: Less than or equal to 0.05 percent by weight.
      b. EN 14617-1: Less than or equal to 0.06 percent by weight.
   2. Apparent Density, ASTM C 97/C 97M, EN 14617-1: 2.2 to 2.4 g/cm^3.
   3. Flexural Strength, ASTM C 880/C 880M, EN 14617-2: Greater than 40 MPa.
   4. Dimension Stability, EN 14617-12: Class A.
   5. Electrical Stability, EN 14617-13:
      a. Volume Resistance (R_v): 0.9 x 10^{14} Ω.
      b. Volume Resistance (p_v): 4.88 x 10^{14} Ωm.
   6. Impact Resistance, ASTM D 1709, EN 14617-9: Greater than or equal to 3.0 J.
   7. Compressive Strength, ASTM C 170/C 170M, EN 14617-15: Greater than or equal to 155 MPa.
   8. Mohs Scale of Hardness, EN 101: 6.0 to 7.0.
   9. Resistance to Deep Abrasion, ASTM C 1243, EN 14617-4: Volume of chord, V, less than or equal to 195 mm^3.
   10. Freeze-Thaw Resistance:
      a. ASTM C 1026: No defects after 15 freeze-thaw cycles.

b. EN 14617-5: No defects after 25 freeze-thaw cycles.

11. Slip Resistance at Honed 400, DIN 51130: R9 to R10.
12. Microbial Resistance, ASTM D 6329: Ranking 3, resistant to mold growth.
13. Chemical Resistance to Acids, EN 14617-10: Class C_4.
14. Thermal Shock Resistance, EN 14617-6: No visual defects after 20 cycles.
15. Determination of Resistance to Immersion in Boiling Water, AS 2924.2-7 (Equivalent to ISO 4586.2-7): Effect on surface (rating), 5 (no visible change).
16. Determination of Resistance to Dry Heat, AS 2924.2-8 (Equivalent to ISO 4586.2-8): Effect on surface (rating), 5 (no visible change).
17. Determination of Resistance to Staining (Procedure A), AS 2924.2-15 (Equivalent to ISO 4586.2-15): Effect on surface (rating), 5 (no visible change).

2.3 MANUFACTURING

A. Quartz Slab Manufacturing Process: Breton Technology equipment.
   1. Other Quartz Slab Manufacturing Processes: Not acceptable.

2.4 FABRICATION

A. Shop Fabrication:
   1. Fabricate quartz surfacing fabrications in accordance with manufacturer's instructions.
   2. Fabricate quartz surfacing fabrications to greatest extent practical in shop.
   3. Fabricate and finish routed edges of components with clean, sharp returns.
   4. Fabricate cutouts, radii, and contours using templates to ensure clean, sharp edges.

B. Seams:
   1. Locate and fabricate seams in accordance with manufacturer's instructions.
   2. Minimize number of seams.
   3. Fabricate seams to be inconspicuous.

2.5 ACCESSORIES

A. Seam Adhesives:
   1. Methacrylate, polyester, or epoxy.
   2. Compatible with quartz surfacing fabrications.

B. Joint Sealants:
   1. 100 percent silicone, 2-part epoxy, or cement-based sealants.
   2. Joint Sealant Manufacturers: Akemi, Laticrete, Mapei, or approved by quartz slab manufacturer.
   3. Compatible with quartz surfacing fabrications.
   4. Specified in Section 07 92 00.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine surfaces to receive quartz surfacing fabrications.

B. Notify Architect of conditions that would adversely affect installation or subsequent use.

C. Do not begin installation until unacceptable conditions are corrected.

3.2 PREPARATION

A. Prepare surfaces to receive quartz surfacing fabrications in accordance with manufacturer's instructions.

B. Verify surfaces to support quartz surfacing fabrications are clean, dry, flat, plumb, level, square, stable, rigid, and capable of supporting the weight.

C. Field Measurements:
   1. Verify actual measurements and openings by field measurements before shop fabrication.
   2. Confirm recorded measurements on shop drawings.
   3. Coordinate field measurements and shop fabrication schedule with construction progress to avoid construction delays.

D. Inspect quartz surfacing fabrications before installation to determine they are sound and free from defects and damage.

3.3 INSTALLATION

A. Install quartz surfacing fabrications in accordance with manufacturer's instructions and AWI/AWMAC/WI Architectural Woodwork Standards.

B. Install quartz surfacing fabrications at locations indicated on the Drawings.

C. Acclimate quartz surfacing fabrications to room temperature for a minimum of 24 hours before installation.

D. Install quartz surfacing fabrications level, plumb, and square.

E. Align adjacent pieces in same plane.

F. Securely anchor quartz surfacing fabrications to supports.

G. Install quartz surfacing fabrications with proper support at perimeter, seams, joints, cutouts, and overhangs.

H. Install seams to be flush, tight, and inconspicuous.

I. Do not install mechanical fasteners directly into quartz surfacing fabrications.

J. Install joint sealants as specified in Section 07 92 00 at locations indicated on the Drawings.

3.4 TOLERANCES

A. Variation from Level and Plumb: Maximum 1/8 inch in 10 feet, noncumulative.

B. Variation in Plane Between Adjacent Pieces at Seams: Maximum plus or minus 1/16 inch.

3.5 ADJUSTING

A. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.

B. Remove and replace with new materials, damaged quartz surfacing fabrications that cannot be successfully repaired, as determined by Architect.

3.6 CLEANING

A. Clean quartz surfacing fabrications promptly after installation in accordance with manufacturer's instructions.

B. Do not use harsh cleaning materials or methods that could damage finish.
   1. Do not use acetone.
   2. Do not use cleaning materials that contain abrasive ingredients.

3.7 PROTECTION

A. Protect installed quartz surfacing fabrications from dirt, stains, scratches, cracks, and other damage during construction.

B. Do not use installed quartz surfacing fabrications as work surfaces or for storage during construction.

Specifier Notes: Include a schedule of quartz surfacing fabrications here, if a schedule is required in this Section. Coordinate the information in this schedule with the products specified in this Section and indicated on the Drawings. Delete this Article if a schedule is not required or is included on the Drawings.

3.8 SCHEDULES

A. Quartz Surfacing Fabrications Schedule:

END OF SECTION