



SECTION 066510 SOLID SURFACE FABRICATIONS

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PART 1 — GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following horizontal and trim solid surface product types:

1. Countertops with sinks
2. Lavatory tops with integral bowls
3. Vanity tops
4. Tabletops
5. Bar tops
6. Windowsills
7. Cove backsplashes

- B. Related Sections include the following:

1. Division 1 Section "LEED Requirements" for additional LEED requirements.
2. Division 5 Section "Metal Fabrications" for Blocking.

- C. Alternates:

1. Refer to Division 1 Section "Alternates" for description of work in this Section affected by alternates.

1.3 DEFINITION

- A. Solid surface is defined as nonporous, homogeneous material maintaining the same composition throughout the part with a composition of modified acrylic polymer, aluminum trihydrate filler and pigment. Materials should be 100% repairable and contain a minimum of 12% Rapidly Renewable materials.

1.4 SUBMITTALS

- A. Product data:
1. For each type of product indicated.
- B. Shop drawings:
1. Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices and other components.
 - a. Show full-size details, edge details, attachments, etc.
 - b. Show locations and sizes of cutouts and holes for plumbing fixtures, faucets, soap dispensers, waste receptacle and other items installed in solid surface.
- C. Samples:
1. For each type of product indicated.
 - a. Submit minimum 6-inch by 6-inch sample in specified gloss.
 - b. Indicate full range of color and pattern variation.
 2. Approved samples will be retained as a standard for work.
- D. Product data:
1. Indicate product description, fabrication information and compliance with specified performance requirements.
- E. LEED submittals:
1. Credit EQ 4.1:
 - a. Manufacturer's product data for installation adhesives, including printed statement of VOC content and material safety data sheets.
 2. Credits MR 6:
 - a. Rapidly Renewable Building Materials and Products

Additional LEED Credits that may be contributed to:

MR Credit 2.1: Construction Waste Management: Divert 50% From Disposal

MR Credit 2.2: Construction Waste Management: Divert 75% From Disposal

- a. Intent: Divert construction, demolition and land-clearing debris from disposal in landfills and incinerators. Redirect recyclable recovered resources back to the manufacturing process. Redirect reusable materials to appropriate sites. Solid Surfaces® by Wiltcher Industries is made to order in the factory, eliminating fabrication waste on site. All packaging and shipping materials can be recycled.

Long-Term LEED Opportunities:

MR Credit 1.3: Building Reuse: Maintain 50% of Interior Non-Structural Elements



- a. Intent: Extend the life cycle of existing building stock, conserve resources, retain cultural resources, reduce waste and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport. Solid Surfaces® by Wiltcher Industries materials are exceptionally durable and renewable, giving them a very long life-cycle. Materials can be re-configured and used during and after a renovation.

MR Credit 3.1: Materials Reuse: 5%

ME Credit 3.2: Materials Reuse: 10%

- a. Intent: Reuse building materials and products in order to reduce demand for virgin materials and to reduce waste, thereby reducing impacts associated with the extraction and processing of virgin resources.

F. Maintenance data:

1. Submit manufacturer's care and maintenance data, including repair and cleaning instructions.
2. Include in project closeout documents.

1.5 QUALITY ASSURANCE

A. Applicable standards:

1. Standards of the following, as referenced herein:
 - a. American National Standards Institute (ANSI)
 - b. American Society for Testing and Materials (ASTM)
 - c. National Electrical Manufacturers Association (NEMA)
2. Fire test response characteristics:
 - a. Provide with the following Class A (Class I) surface burning characteristics as determined by testing identical products per UL 723 (ASTM E84) or another testing and inspecting agency acceptable to authorities having jurisdiction:
 - 1) Flame Spread Index: 25 or less.
 - 2) Smoke Developed Index: 450 or less.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver no components to project site until areas are ready for installation.
- B. Store components indoors prior to installation.
- C. Handle materials to prevent damage to finished surfaces.
 1. Provide protective coverings to prevent physical damage or staining following installation for duration of project.

1.7 WARRANTY

- A. Provide manufacturer's warranty against defects in materials.
 1. Warranty shall provide material to repair or replace defective materials.



2. Damage caused by physical or chemical abuse or damage from excessive heat will not be warranted.

B. Manufacturer's warranty period:

1. Two years from date of substantial completion.

1.8 MAINTENANCE

A. Provide maintenance requirements as specified by the manufacturer.

PART 2 — PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers:

1. Subject to compliance with requirements, provide products by one of the following:

a. Solid Surfaces from Wiltcher Industries (basis of design). 648 Aldenham Lane Ormond Beach, FL 32174. (888) 963-8990

2.2 MATERIALS

A. Solid polymer components

1. Cast, nonporous, filled polymer, not coated, laminated or of composite construction with through body colors meeting ANSI Z124.3 or ANSI Z124.6, having minimum physical and performance properties specified.

2. Superficial damage to a depth of 0.010 inch (.25 mm) shall be repairable by sanding and/or polishing.

B. Thickness:

1. 1/2 inch (industry standard)

C. Select edge treatment from manufacturer standard options.

D. Integral sink:

1. Model: Select from manufacturer's available models of sinks

a. Solid surface lavatories are available for ADA or local handicap compliance.

2. Color: Select from manufacturer's range of available sink colors.

3. Mounting:

a. Seamed undermount.

E. Integral vanity: Select from manufacturer's range of standard sizes and colors.



F. Backsplash:

1. Applied is available.
2. Coved is standard.

G. Side splash:

1. Applied is standard.
2. Coved is available.

H. Performance characteristics:

Comprehensive Analysis Data - Solid Surfaces® by Wiltcher Industries

Test Type	Test Method	Tested Results
Hardness	ASTM D-2583-95	58- 60
Work to Break		8.56
Flex. Strength	ASTM D- 790	9,870
Mod.		1,330,000
Gloss	NEMA LD 3-3 1513.2	5- 20
Wear and Clean	ANSI Z124.3	Passes
Abrasion Resistance	CS 221-66	No Loss of Pattern
Cigarette Resistance	NEMA LD3-3.07	No Effect
Boiled Water Resistance	NEMA LD3- 3.05/3.5	See Below*
Slip Resistance	ASTM F-462	0.24
High Temperature Resistance	NEMA LD3- 3.06/3.5	No Effect
Chemical Resistance	ANSI Z124.3	No Effect
Color Stability	ASTM D-792	Slight Effect at 200 Hours
Conductive Heat	NEMA LD3- 3.08/ 3.8N	Slight Effect
Unnotched Impact	ASTM D- 256- 96a	1.3
Notch Impact	ASTM D- 256- 96a	0.33 Ft- Lb/ In
Stain	ANSI Z124.3	Passes- 43
Sp. Gr.	ASTM D- 729- 91	1.71
Water Absorption	ASTM D- 570- 95	0.022
Flammability	ASTM E- 84	Class 1
Oxygen Index	ASTM D- 2863	0.33
% Cure by DSC	Analytical	97%
GC Head Space .	Analytical	1030 PPM

* Boiling water and high temperature resistance tests may have an effect on the surface; however, the surface can be renewed to 'No Effect'.

Typical properties refers to an average value.

Fire Test Data

Solid Surface materials shall be classified by Underwriters Laboratories under UL File Number R14436 for surface burning characteristics. Test data for Solid Surface panels shall be generated according to ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials. This



procedure is catalogued by Underwriters Laboratories, Inc. as UL 723. For panels with a thickness of one-half inch (13 mm), the Flame Spread Index is less than or equal to 25.

Materials shall comply with the following Codes and Certifications

- Approved by NSF International Standard 51 “Splash Zone” areas.
- ASTM G-22 bacterial resistance
- ASTM G-21 fungal resistance

2.3 ACCESSORIES

A. Joint adhesive:

1. Manufacturer’s standard one- or two-part adhesive kit to create inconspicuous, nonporous joints.

B. Sealant:

1. Manufacturer’s standard mildew-resistant, UL-listed silicone sealant in colors matching components.

2.4 FACTORY FABRICATION

A. Shop assembly

1. Fabricate components to greatest extent practical to sizes and shapes indicated, in accordance with approved shop drawings and manufacturer’s printed instructions and technical bulletins.
2. Form joints between components using manufacturer’s standard joint adhesive without conspicuous joints.
3. Provide factory cutouts for plumbing fittings and bath accessories as indicated on the drawings.
4. Rout and finish component edges with clean, sharp returns.
 - a. Rout cutouts, radii and contours to template.
 - b. Smooth edges.
 - c. Repair or reject defective and inaccurate work.

2.5 FINISHES

A. Select from the manufacturer’s standard color chart.

B. Finish:

1. Provide surfaces with a uniform finish.
2. Final finish is supplied by the fabricator and may range from matte to high gloss, depending on the customer’s specification. Surfaces with gloss and semi-gloss finishes require more maintenance than matte or satin finishes. Darker colors also may require more attention.
 - a. Matte is standard; gloss range of 5–20.
 - b. Semigloss; gloss range of 20–50.
 - c. Polished; gloss range of 50–80.

PART 3 — EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with fabricator present for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.
 - 1. Provide product in the largest pieces available.
 - 2. Form field joints using manufacturer's recommended adhesive, with joints inconspicuous in finished work.
 - a. Exposed joints/seams shall not be allowed.
 - 3. Reinforce field joints with solid surface strips extending a minimum of 1 inch on either side of the seam with the strip being the same thickness as the top.
 - 4. Cut and finish component edges with clean, sharp returns.
 - 5. Rout radii and contours to template.
 - 6. Anchor securely to base cabinets or other supports.
 - 7. Align adjacent countertops and form seams to comply with manufacturer's written recommendations using adhesive in color to match countertop.
 - 8. Carefully dress joints smooth, remove surface scratches and clean entire surface.
 - 9. Install countertops with no more than 1/8-inch (3 mm) sag, bow or other variation from a straight line.
- B. Coved backsplash and applied side splash:
 - 1. Install applied side splash using manufacturer's standard color-matched silicone sealant.
 - 2. Adhere applied side splash to countertops using manufacturer's standard color-matched silicone sealant.
- C. Coved back splash and side splash:
 - 1. Provide coved backsplashes and side splash at all walls and adjacent millwork.
 - 2. Fabricate radius cove at intersection of counters with backsplashes to dimensions shown on the drawings.
 - 3. Adhere to countertops using manufacturer's standard color-matched Joint Adhesive.
- D. Integral sinks/vanities:
 - 1. Provide solid surface materials bowls and/or lavatories sinks with overflows in locations shown on the drawings.

2. Secure sinks and lavatory bowls to tops using manufacturer's recommended sealant, adhesive and mounting hardware to maintain warranty.

3.3 REPAIR

- A. Repair or replace damaged work which cannot be repaired to architect's satisfaction.

3.4 CLEANING AND PROTECTION

- A. Keep components clean during installation.
- B. Remove adhesives, sealants and other stains.

3.5 SCHEDULE

A. Countertops:

1. Surfaces of material adhesively joined with inconspicuous seams.

Color

- a. Vertical Thickness _____
- b. Horizontal Thickness _____
- c. Edge Details _____
- d. Finish _____
- e. Backsplash _____
- f. Side splash _____

B. Bar tops:

1. Surfaces of material adhesively joined with inconspicuous seams.

Color

- a. Vertical Thickness _____
- b. Horizontal Thickness _____
- c. Edge Details _____
- d. Finish _____
- e. Backsplash _____
- f. Side splash _____
- g. Sink _____

C. Countertops with seamed undermount solid surface sinks:

1. Surfaces of material adhesively joined with inconspicuous seams.

Color

- a. Vertical Thickness _____
- b. Horizontal Thickness _____
- c. Edge Details _____
- d. Finish _____

- e. Backsplash _____
- f. Side splash _____
- g. Sink _____

D. Integral vanity tops and lavatories:

1. Surfaces of material adhesively joined with inconspicuous seams.

Color

- a. Vertical Thickness _____
- b. Horizontal Thickness _____
- c. Edge Details _____
- d. Finish _____
- e. Backsplash _____
- f. Side splash _____
- g. Sink _____

E. Windowsills:

1. Surfaces of material adhesively joined with inconspicuous seams.

Color

- a. Vertical Thickness _____
- b. Horizontal Thickness _____
- c. Edge Details _____
- d. Finish _____

years