(**Specifier Note**: Aristech Surfaces LLC is the manufacturer of the Avonite Surfaces® Acrylic Solid Surface.

The purpose of this guide specification is to assist the specifier in correctly specifying solid surface countertops including sinks and backsplashes.

The specifier needs to edit these guide specifications to fit the needs of each specific project. Contact an Avonite Surfaces® brand representative to assist in appropriate product selections. Throughout the guide specification, there are Specifier Notes to assist in the editing of the file.

References have been made within the text of the specification to MasterFormat 2004 Section numbers and titles; specifier needs to coordinate these numbers and titles with sections included for the specific project. Brackets []; “AND/OR”; and “OR” have been used to indicate when a selection is required. Some options may require additional lead-time, if this is a consideration, contact an Aristech Surfaces LLC representative for assistance.

Specifier may elect to incorporate portions of this guide specification into a Division 06 section that includes casework.)

**SECTION 12 36 00**

**COUNTERTOPS**

Avonite Surfaces® Solid Surface

1. GENERAL
	* + 1. SECTION INCLUDES

*(****Specifier Note****: MAINTAIN types of countertop that are specific to project.)*

* + - * 1. Countertops
				2. Sinks
				3. Splashes
			1. REFERENCES
				1. ASTM International

ASTM D 6110; Standard Test Method for Determining the Charpy Impact Resistance of Notched Specimens of Plastics ASTM D 570; Standard Test Method for Water Absorption of Plastics.

ASTM D 790; Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

ASTM D 696; Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between −30°C and 30°C with a Vitreous Silica Dilatometer

ASTM D 2583; Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor

National Electrical Manufacturers Association (NEMA) LD.3 High Pressure Decorative Laminates.

* + - 1. SUBMITTALS
				1. Refer to Section [01 33 00 Submittal Procedures] [Insert section number and title].
				2. Product Data: Submit manufacturer’s current product literature for each product indicated.
				3. Samples: [Provide a four-inch square color sample for products indicated.] [Provide color literature showing colors of actual material if products are not provided.]
				4. Shop Drawings: Include details, and attachments to other work.

Submit shop drawings showing seams, termination points, and details of edges.

Submit coordination drawings indicating electrical and plumbing work.

* + - * 1. LEED Submittal:

*(****Specifier Note****: MAINTAIN appropriate LEED submittal requirements when project is to be LEED registered.)*

Credit EQ 4.1 Indoor Air Quality

 Manufacturer’s product data for installation adhesives, including printed statement of VOC content and material safety data sheets.

Credit MR 4.1 or 4.2 Materials and Resources

 Manufacturer to provide third party certification of 16% or 40% recycled content

Credit MR 5.1 Regional Materials.

 Product data indicating that materials are regionally manufactured within 500 miles.

Credit ID 1-4 Innovative Design

 Solid surface products are extremely durable with an extensive life cycle and can be reused in new applications. Selecting custom sized products can lower costs and reduce waste.

* + - * 1. Manufacturer Instructions: Provide manufacturer’s written installation instructions.
				2. Installer Certification: Submit a signed copy of the installer’s certificate, acknowledging the employee has been trained and approved by manufacturer.
				3. Closeout Submittals

Refer to Section [01 78 00 Closeout Submittals] [Insert section number and title].

* + - 1. QUALITY ASSURANCE
				1. Installer Qualifications: Manufacturer approved installer shall fabricate and install solid surface products, and demonstrate successful experience in installing finished carpentry items similar in type and quality to those required for this project.
			2. DELIVERY, STORAGE AND HANDLING
				1. Refer to Section [01 60 00 Product Requirements] [Insert section number and title].
				2. Deliver sheets, fabricated items, materials and components in manufacturer’s original, unopened, undamaged containers with identification labels intact.
				3. Store solid surface products and accessories as recommended by manufacturer.
1. PRODUCTS

*(****Specifier Note****: Product information is proprietary to Aristech Surfaces LLC. If additional products are required for competitive procurement, contact Aristech Surfaces LLC for assistance in listing competitive products that may be available.)*

* + - 1. MANUFACTURER
				1. Avonite Surfaces® Acrylic Solid Surface sheets are manufactured by
				Aristech Surfaces LLC, 7350 Empire Drive Florence, KY 41042, USA; Phone 1.800.354.9858 or 859.283.1501, fax 859.283.7378; website [www.aristechsurfaces.com](http://www.aristechsurfaces.com).
			2. SOLID SURFACE MATERIAL

*(****Specifier Note****: Using a basis of design is acceptable when writing a proprietary specification or when including accepted equivalent products. some of the Avonite acrylic products have 16% recycled content. MAINTAIN the project specific products.)*

* + - * 1. Basis of Design: [Avonite Surfaces® Acrylic] by Aristech Surfaces LLC.
				2. Description: Non-porous, homogeneous material maintaining the same composition throughout the product with a composition of polyester or acrylic polymer, aluminum trihydrate filler and pigment.
				3. Thickness: [12mm]
				4. Color: [Insert color] [To be selected by Architect] [As indicated on Drawings]

 *(****Specifier Note****: Most standard solid surface materials are only available in 30 and 36-inch wide sheets. These sheet sizes may produce enormous amounts of waste. Through the use of Avonite Surfaces® Acrylic Wide Sheet Size products, waste is minimized and joints are eliminated. For large jobs, Avonite Surfaces® Acrylic Right-Size™ Sheet Program assists the designer and contractor in cutting costs, reducing waste and saving time. Other manufacturers may offer wide and custom sheet size options for project requiring competitive pricing. Verify availability.)*

* + - * 1. Sheet Size: [Avonite Surfaces® Acrylic standard 30” x 144”] [Insert Custom Avonite Surfaces® Acrylic Sheet Size]

*(****Specifier Note****: Listed characteristics are minimum standards for the solid surface industry. MAINTAIN the performance characteristics of the material selection. DELETE performance characteristics of materials not project specific.)*

 *(****Specifier Note****: DELETE requirement for recycled content when selected product doesn’t meet the criteria or when not required for project. Verify available colors that contain minimum recycled content.)*

* + - * 1. Performance Characteristics based on 12mm thick solid color: (Avonite Surfaces® Acrylic)

Specific Gravity: 28.3 grams/cu. in.

Hardness: 59, when tested in accordance with ASTM D2583

Flexural strength: 8,000 psi, when tested in accordance with ASTM D790

Tensile Modulus: 12.3 x 105, when tested in accordance with ASTM D790

Water Absorption after 24 hours: 0.04 %, when tested in accordance with ASTM D570

Charpy Impact Foot Pounds per Inch: 1.5, when tested in accordance with ASTM D6110

Impact Resistance 1/2 Pound: No Fracture at a height >150 in, when tested in accordance with NEMA LD3-3.3

Linear Thermal Expansion, in/in/oF: 2.1 x 10-5, when tested in accordance with ASTM D696

High Temperature Resistance: No Effect, when tested in accordance with NEMA LD3-3.6

Boiling Water Resistance: No Effect, when tested in accordance with NEMA LD3-3.5

Stain Resistance: No Effect, when tested in accordance with NEMA LD3-3.9

Weight per sq. ft., 12mm thickness: 4.5 pounds

*(****Specifier Note****: DELETE requirement for recycled content when selected product doesn’t meet the criteria or when not required for project. Verify available colors that contain minimum recycled content.)*

Recycled Content: Minimum 16%

* + - 1. ACCESSORIES
				1. Silicone Sealant: Mildew-resistant, FDA-compliant, 100% silicone sealant recommended by manufacturer
				2. Sink: [Integral designed sink]
			2. FABRICATION
				1. Solid surface shall be finished and fabricated by an Aristech Surfaces LLC authorized fabricator.
				2. Product is supplied unfinished; specify and communicate desired finish to fabricator.
				3. Fabricate using 12mm thick material unless otherwise indicated.
				4. Solid surface shall be fabricated to field measurements.
				5. Cut and finish component edges with clean, sharp returns.
				6. Finished edges shall have a 1/16-inch radius.

*(****Specifier Note****: Splash surfaces are typically separate pieces. Integral splash fabricated with the countertop will typically be an additional cost. DELETE statement when splash is fabricated separately, or when no flash is required.)*

* + - * 1. Integral Cove: Provide shop fabricated integrally molded coves at back and ends where against walls or other vertical surfaces, with 3/8” radius between top and splash.

*(****Specifier Note****: MAINTAIN integral sink when project specific. DELETE when under mount, drop‑in or no sink is required for project.)*

* + - * 1. Integral Sinks shall be selected from manufacturer’s standard sink designs and colors, and shall be formed integrally with countertops.

*(****Specifier Note****: MAINTAIN cutout requirements when under mount or drop-in sink are project specific. DELETE when no cutouts are required or when integral sink is specified.)*

* + - * 1. Cutouts for sinks [and other accessories] shall be smooth and uniform without saw marks. The top and bottom of openings shall be finished smooth.
				2. Maintain minimum ¼ inch (6mm) radius for sink cutouts.
1. EXECUTION
	* + 1. EXAMINATION
				1. Inspect materials and location of installation for conditions affecting performance of work in accordance with shop drawings.
				2. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. INSTALLATION
				1. Install solid surfaces in accordance with manufacturer’s installation guidelines and recommendations.
				2. Field cut countertop as required for plumbing fixtures and bath accessories.
				3. Cure countertops for 24 hours, minimum, before exposure to moisture or pressure.
				4. Corner joints: Form 1/8-inch-wide joints, sealed with manufacturer’s color-matching silicone sealant.
				5. Back splashes: Field install with tight, sealed joints.
				6. Field joints shall be hard seamed unless otherwise specified.
				7. Attach solid surfaces material to leveled supports on frame with dabs of silicone every 18”-24”
				8. Fasten solid surface material to frame by anchoring screws to supports at all corner blocks. Screws should not come in contact with solid surface material, as this may cause cracking of countertop.
			3. CLEANING AND PROTECTION
				1. Remove adhesives, sealants and other stains.
				2. Protect installed wall cladding from damage. Repair or replace damaged work, to Architects satisfaction.

END OF SECTION