



*Aristech Surfaces LLC is the manufacturer of Avonite Surfaces® Solid Surface.*

*The purpose of this guide is to assist the specifier in correctly identifying the Avonite Surfaces® Solid Surface panels and hardware for portable partitions, screens and panels applications. The [SPECIFIER NOTE] throughout is identified to assist in selecting or providing the required information. The specifier needs to edit these guide specifications to fit the needs of each project. Contact an Aristech Regional Manager to assist in appropriate product selections and reach out to our Technical Service Team if further assistance is needed.*

*References have been made within the text of the specification to MasterFormat® 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.*

## **2018 MasterFormat® SECTION 10 22 23 (102223) PORTABLE PARTITIONS, SCREENS and PANELS**

### **Avonite Surfaces® Solid Surface Panels**

Avonite Surfaces® Solid Surface by Aristech Surfaces LLC; Aluminum Frames, Trim and Hardware;  
Doors and Hardware by Other Manufacturers

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

- Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

##### **1.2 SUMMARY**

- SECTION INCLUDES

**[SPECIFIER NOTE: MAINTAIN types of applications that are specific to project.]**

1. Portable Partitions, Screens and Panels

##### **1.3 PREINSTALLATION MEETINGS**

**[SPECIFIER NOTE: Retain "Preinstallation Conference" Paragraph below if Work of this Section is extensive or complex enough to justify a conference.]**

Project Name / Project Number / Date  
10 22 23 - 2018 MasterFormat® PORTABLE PARTITIONS, SCREENS and PANELS  
Avonite Surfaces® Solid Surface



- Preinstallation Conference: Conduct conference at **[Project site] <Insert location>**.

**[SPECIFIER NOTE: If needed, insert list of conference participants not mentioned in Section 013100 "Project Management and Coordination."]**

#### 1.4 ACTION SUBMITTALS

- Product Data: Submit manufacturer's current product literature for each product indicated

**[SPECIFIER NOTE: Maintain appropriate LEED submittal requirements when project is to be LEED registered.]**

- Sustainable Design Submittals: Avonite Surfaces® Solid Surface
  1. Credit MR 2, Building Product Disclosure & Optimization – EPDs, Option 1. Provide manufacturer's Environmental Product Declaration.
  2. Credit MR 3, Building Product Disclosure & Optimization -- Sourcing of Raw Materials, Option 2. Provide manufacturer's third-party certification of recycled content.
  3. Credit MR 4, Building Product Disclosure & Optimization – Material Ingredients, Option 1. Provide manufacturer's Health Product Declaration or Declare label.
  4. Credit EQ 2, Low-emitting Materials. Provide manufacturer's product data for installation adhesives, including printed statement of VOC content and material safety data sheets.
- Shop Drawings:
  1. Include plans, elevations, sections and attachment details at floors, columns, permanent partitions and ceilings, and method of erection and disassembly.

**[SPECIFIER NOTE: Retain subparagraph below if partitions include wiring raceways.]**

2. Include diagrams for power-, signal-, and control-wiring raceways, and details of access to raceways.
- Samples:
    1. Provide four-inch square color and finish samples for solid surface products indicated.
    2. Provide samples of linear trim, hardware and accessories for color and finish selection.

#### 1.5 INFORMATIONAL SUBMITTALS

- Qualification Data: Installer Certification. Submit a signed copy of the installer's certificate, acknowledging the employee has been trained and approved by manufacturer.
- Manufacturer Instructions: Provide manufacturer's written installation instructions.  
[\[www.aristechsurfaces.com\]](http://www.aristechsurfaces.com)

#### 1.6 CLOSEOUT SUBMITTALS

- Maintenance Data: For portable partitions to include in maintenance manuals.

Project Name / Project Number / Date  
10 22 23 - 2018 MasterFormat® PORTABLE PARTITIONS, SCREENS and PANELS  
Avonite Surfaces® Solid Surface



## 1.7 MAINTENANCE MATERIALS SUBMITTALS

- Furnish extra materials that match products installed and that are packaged with protective coating for storage and identified with labels describing contents.

## 1.8 QUALITY ASSURANCE

- Panels are to be acrylic solid surface material.
- Installer Qualifications: Manufacturer approved installer shall fabricate and install acrylic solid surface sheet products and demonstrate successful experience in installing metal trim and hardware and finished carpentry items similar in type and quality to those required for this project.

**[SPECIFIER NOTE:** Retain Mockups paragraphs if desired.]

- Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.

**[SPECIFIER NOTE:** Indicate portion of wall represented by mockup on Drawings or draw mockup as separate element. Paragraph 3 below is optional.]

1. Build mockups for portable partitions including accessories. *[Insert size and description of mockups]*.
2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

## 1.9 FIELD CONDITIONS

- Coordination of work: Installation of suspended ceilings, flooring and wall finishes, lighting fixtures, HVAC equipment, painting and fire-suppression systems should be completed before installation of portable partitions.
- Do not begin installation of portable partitions until permanent HVAC systems are properly operating and building temperature and humidity have stabilized.



## PART 2 - 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.]**

### 2.1 PERFORMANCE REQUIREMENTS

- Performance Characteristics based on 12mm, 9mm and 6mm thickness, solid colors:  
*[Avonite Solid Surface]*
  1. Specific Gravity: 1.73 when tested in accordance with ASTM D792
  2. Barcol Hardness: 63, when tested in accordance with ASTM D2583
  3. Water Absorption after 24 hours: 0.04 %, when tested in accordance with ASTM D570
  4. Flexural Strength: 9,300 psi, when tested in accordance with ASTM D790
  5. Flexural Modulus:  $12.6 \times 10^5$  psi when tested in accordance with ASTM D790
  6. Charpy Impact: 1.10 ft.lb/in, when tested in accordance with ASTM D6110
  7. Linear Thermal Expansion:  $2.09 \times 10^{-5}$  in/in/°F, when tested in accordance with ASTM D696
  8. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
  9. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
  10. Stain Resistance: No Effect, when tested in accordance with ANZI/ICPA SS-1
  11. Food Zone use: Approved, when tested to NSF 51 Standard.
  12. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
  13. Fungi Resistance: No Growth, when tested in accordance with ASTM G21.

**(SPECIFIER NOTE: DELETE requirement for recycled content when selected product doesn't meet the criteria or when not required for project.)**

14. Recycled Content: Minimum 16%

**[SPECIFIER NOTE: Revise Smoke-Developed Index and Flame-Spread Index Paragraphs below as required by governing code for partition location, occupancy classification and whether sprinklered or not].**

15. Smoke-Developed Index: Comply with International Building Code (IBC) Section 2606 for light-transmitting plastics with Smoke-Developed Index not greater than 450 when tested in accordance with ASTM E84.
  16. Flame-Spread Index of 20 when tested in accordance with ASTM E84.
- Performance Characteristics based on 12mm, 9mm and 6mm thickness, colors with small particulates: *[Avonite Solid Surface]*
    1. Specific Gravity: 1.60 when tested in accordance with ASTM D792
    2. Barcol Hardness: 58, when tested in accordance with ASTM D2583
    3. Water Absorption after 24 hours: 0.05 %, when tested in accordance with ASTM D570
    4. Flexural Strength: 8,000 psi, when tested in accordance with ASTM D790
    5. Flexural Modulus:  $10.6 \times 10^5$  psi when tested in accordance with ASTM D790
    6. Charpy Impact: 1.10 ft.lb/in, when tested in accordance with ASTM D6110
    7. Linear Thermal Expansion:  $2.46 \times 10^{-5}$  in/in/°F, when tested in accordance with ASTM D696
    8. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
    9. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01

Project Name / Project Number / Date  
10 22 23 - 2018 MasterFormat® PORTABLE PARTITIONS, SCREENS and PANELS  
Avonite Surfaces® Solid Surface



10. Stain Resistance: No Effect, when tested in accordance with ANZI/ICPA SS-1
11. Food Zone use: Approved, when tested to NSF 51 Standard.
12. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
13. Fungi Resistance: No Growth, when tested in accordance with ASTM G21.

*(SPECIFIER NOTE: DELETE requirement for recycled content when selected product doesn't meet the criteria or when not required for project.)*

14. Recycled Content: Minimum 16%

*[SPECIFIER NOTE: Revise Smoke-Developed Index and Flame-Spread Index Paragraphs below as required by governing code for partition location, occupancy classification and whether sprinklered or not].*

15. Smoke-Developed Index: Comply with International Building Code (IBC) Section 2606 for light-transmitting plastics with Smoke-Developed Index not greater than 450 when tested in accordance with ASTM E84.
16. Flame-Spread Index of 20 when tested in accordance with ASTM E84.

- Performance Characteristics based on 12mm, 9mm and 6mm thickness, colors with medium particulates: *[Avonite Solid Surface]*
  1. Specific Gravity: 1.62 when tested in accordance with ASTM D792
  2. Barcol Hardness: 59, when tested in accordance with ASTM D2583
  3. Water Absorption after 24 hours: 0.05 %, when tested in accordance with ASTM D570
  4. Flexural Strength: 7,150 psi, when tested in accordance with ASTM D790
  5. Flexural Modulus:  $10.5 \times 10^5$  psi when tested in accordance with ASTM D790
  6. Charpy Impact: 0.85 ft.lb/in, when tested in accordance with ASTM D6110
  7. Linear Thermal Expansion:  $2.46 \times 10^{-5}$  in/in/°F, when tested in accordance with ASTM D696
  8. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
  9. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
  10. Stain Resistance: No Effect, when tested in accordance with ANZI/ICPA SS-1
  11. Food Zone use: Approved, when tested to NSF 51 Standard.
  12. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
  13. Fungi Resistance: No Growth, when tested in accordance with ASTM G21.

*(SPECIFIER NOTE: DELETE requirement for recycled content when selected product doesn't meet the criteria or when not required for project.)*

14. Recycled Content: Minimum 16%

*[SPECIFIER NOTE: Revise Smoke-Developed Index and Flame-Spread Index Paragraphs below as required by governing code for partition location, occupancy classification and whether sprinklered or not].*

15. Smoke-Developed Index: Comply with International Building Code (IBC) Section 2606 for light-transmitting plastics with Smoke-Developed Index not greater than 450 when tested in accordance with ASTM E84.
16. Flame-Spread Index of 20 when tested in accordance with ASTM E84.

- Performance Characteristics based on 12mm, 9mm and 6mm thickness, colors with large particulates: *[Avonite Solid Surface]*
  1. Specific Gravity: 1.63 when tested in accordance with ASTM D792

Project Name / Project Number / Date  
10 22 23 - 2018 MasterFormat® PORTABLE PARTITIONS, SCREENS and PANELS  
Avonite Surfaces® Solid Surface



2. Barcol Hardness: 60, when tested in accordance with ASTM D2583
3. Water Absorption after 24 hours: 0.05 %, when tested in accordance with ASTM D570
4. Flexural Strength: 6,850 psi, when tested in accordance with ASTM D790
5. Flexural Modulus:  $11.7 \times 10^5$  psi when tested in accordance with ASTM D790
6. Charpy Impact: 0.80 ft.lb/in, when tested in accordance with ASTM D6110
7. Linear Thermal Expansion:  $2.46 \times 10^{-5}$  in/in/ $^{\circ}$ F, when tested in accordance with ASTM D696
8. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
9. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
10. Stain Resistance: No Effect, when tested in accordance with ANZI/ICPA SS-1
11. Food Zone use: Approved, when tested to NSF 51 Standard.
12. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
13. Fungi Resistance: No Growth, when tested in accordance with ASTM G21.

**[SPECIFIER NOTE: Revise Smoke-Developed Index and Flame-Spread Index Paragraphs below as required by governing code for partition location, occupancy classification and whether sprinklered or not].**

14. Smoke-Developed Index: Comply with International Building Code (IBC) Section 2606 for light-transmitting plastics with Smoke-Developed Index not greater than 450 when tested in accordance with ASTM E84.
  15. Flame-Spread Index of 20 when tested in accordance with ASTM E84.
- Performance Characteristics based on 12mm, 9mm and 6mm thickness, translucent colors: *[Avonite Solid Surface]*
    1. Specific Gravity: 1.60 when tested in accordance with ASTM D792
    2. Barcol Hardness: 55, when tested in accordance with ASTM D2583
    3. Water Absorption after 24 hours: 0.05 %, when tested in accordance with ASTM D570
    4. Flexural Strength: 4,450 psi, when tested in accordance with ASTM D790
    5. Flexural Modulus:  $10.2 \times 10^5$  psi when tested in accordance with ASTM D790
    6. Charpy Impact: 1.12 ft.lb/in, when tested in accordance with ASTM D6110
    7. Linear Thermal Expansion:  $2.46 \times 10^{-5}$  in/in/ $^{\circ}$ F, when tested in accordance with ASTM D696
    8. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
    9. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
    10. Stain Resistance: No Effect, when tested in accordance with ANZI/ICPA SS-1
    11. Food Zone use: Approved, when tested to NSF 51 Standard.
    12. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
    13. Fungi Resistance: No Growth, when tested in accordance with ASTM G21.

**[SPECIFIER NOTE: Revise Smoke-Developed Index and Flame-Spread Index Paragraphs below as required by governing code for partition location, occupancy classification and whether sprinklered or not].**

14. Smoke-Developed Index: Comply with International Building Code (IBC) Section 2606 for light-transmitting plastics with Smoke-Developed Index not greater than 450 when tested in accordance with ASTM E84.
- Flame-Spread Index of 20 when tested in accordance with ASTM E84.
  - Performance Characteristics based on 3mm thickness, solid colors: *[Avonite Solid Surface]*
    1. Specific Gravity: 1.60 when tested in accordance with ASTM D792
    2. Barcol Hardness: 50, when tested in accordance with ASTM D2583

Project Name / Project Number / Date  
10 22 23 - 2018 MasterFormat® PORTABLE PARTITIONS, SCREENS and PANELS  
Avonite Surfaces® Solid Surface





3. Water Absorption after 24 hours: 0.13 %, when tested in accordance with ASTM D570
4. Flexural Strength: 10,300 psi, when tested in accordance with ASTM D790
5. Flexural Modulus:  $8.8 \times 10^5$  psi when tested in accordance with ASTM D790
6. Charpy Impact: 1.95 ft.lb/in, when tested in accordance with ASTM D6110
7. Linear Thermal Expansion:  $2.46 \times 10^{-5}$  in/in/°F, when tested in accordance with ASTM D696
8. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
9. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
10. Stain Resistance: No Effect, when tested in accordance with ANZI/ICPA SS-1
11. Food Zone use: Approved, when tested to NSF 51 Standard.
12. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
13. Fungi Resistance: No Growth, when tested in accordance with ASTM G21.

**[SPECIFIER NOTE: Revise Smoke-Developed Index and Flame-Spread Index Paragraphs below as required by governing code for partition location, occupancy classification and whether sprinklered or not].**

14. Smoke-Developed Index: Comply with International Building Code (IBC) Section 2606 for light-transmitting plastics with Smoke-Developed Index not greater than 450 when tested in accordance with ASTM E84.
  15. Flame-Spread Index of 20 when tested in accordance with ASTM E84.
- Performance Characteristics based on 3mm thickness, colors with particulates: *[Avonite Solid Surface]*
    1. Specific Gravity: 1.60 when tested in accordance with ASTM D792
    2. Barcol Hardness: 57, when tested in accordance with ASTM D2583
    3. Water Absorption after 24 hours: 0.08 %, when tested in accordance with ASTM D570
    4. Flexural Strength: 8,000 psi, when tested in accordance with ASTM D790
    5. Flexural Modulus:  $9.75 \times 10^5$  psi when tested in accordance with ASTM D790
    6. Charpy Impact: 0.90 ft.lb/in, when tested in accordance with ASTM D6110
    7. Linear Thermal Expansion:  $2.46 \times 10^{-5}$  in/in/°F, when tested in accordance with ASTM D696
    8. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
    9. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
    10. Stain Resistance: No Effect, when tested in accordance with ANZI/ICPA SS-1
    11. Food Zone use: Approved, when tested to NSF 51 Standard.
    12. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
    13. Fungi Resistance: No Growth, when tested in accordance with ASTM G21.

**[SPECIFIER NOTE: Revise Smoke-Developed Index and Flame-Spread Index Paragraphs below as required by governing code for partition location, occupancy classification and whether sprinklered or not].**

14. Smoke-Developed Index: Comply with International Building Code (IBC) Section 2606 for light-transmitting plastics with Smoke-Developed Index not greater than 450 when tested in accordance with ASTM E84.
15. Flame-Spread Index of 20 when tested in accordance with ASTM E84.

## 2.2 PORTABLE PARTITIONS COMPONENTS

**[SPECIFIER NOTE: Retain brands and types of continuous cast acrylic panels in paragraphs below that you wish to specify]**

Project Name / Project Number / Date  
10 22 23 - 2018 MasterFormat® PORTABLE PARTITIONS, SCREENS and PANELS  
Avonite Surfaces® Solid Surface



- Solid Surface Panels
  1. Material shall be Avonite Surfaces® Solid Surface
  2. Color: *[Insert Avonite Surfaces® Color/Code]*
  3. Finish: *[Fabricated Finish - Polished]* *[Fabricated Finish - Satin]* *[Fabricated Finish - Matte]*
  4. Thickness: *[3mm/0.118in.] [6mm/0.236 in.] [12mm /0.472 in.] [Other as specified]*
- Aluminum Frames, Trim and Hardware: C.R. Laurence Company – U.S. Aluminum CRL Area Divider Systems, or comparable.
  1. Description: Extruded aluminum components accommodating *[thickness]* glazing. Systems may utilize clip joinery or screw spline assembly.
  2. Standard finish as specified by Architect: *[Insert Finish]*
  3. Standard color as specified by Architect: *[Insert Color]*
- Accessories: *[Insert description]*.

## 2.3 FABRICATION

- Partitions shall be finished and fabricated by an Aristech Surfaces LLC authorized fabricator of solid surface materials.
- Any exposed finished edges of solid surface panels shall have a 1/16-inch radius.

***[SPECIFIER NOTE: Retain "Wiring" Paragraph below for prewired partitions.]***

- Wiring: Conceal conductors and cables in raceways. Bundle, lace, and train conductors to terminal points with no excess and without exceeding manufacturer's limitations on bending radii.

## 2.4 GENERAL FINISH REQUIREMENTS

- Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- Examine components before installation. Reject components that are wet, moisture damaged, mold damaged, broken, cracked, chipped, deformed, or unmatched.

Project Name / Project Number / Date  
10 22 23 - 2018 MasterFormat® PORTABLE PARTITIONS, SCREENS and PANELS  
Avonite Surfaces® Solid Surface





- Examine roughing-in for electrical power to verify actual locations of power connections before partition installation.
- Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- Install portable partitions after other finishing operations have been completed.
  1. Install partitions rigid, level, plumb, and aligned.
- Electrical Devices: Connect integral, concealed wiring to serve electrical power and communication devices indicated on Drawings.

***[SPECIFIER NOTE: Retain first subparagraph below for power receptacles.]***

1. Connect electrical service at junction-box locations according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

***[SPECIFIER NOTE: Retain subparagraph below for data ports.]***

2. Connect data communication service at junction-box locations according to Section 271513 "Communications Copper Horizontal Cabling."

### 3.3 ADJUSTING

- Inspect installation, correct misalignments, and tighten loose connections.
- Remove and replace defaced or damaged components [ that cannot be satisfactorily repaired].

**END OF SECTION 10 22 23**

Project Name / Project Number / Date  
10 22 23 - 2018 MasterFormat® PORTABLE PARTITIONS, SCREENS and PANELS  
Avonite Surfaces® Solid Surface