



Aristech Surfaces LLC is the manufacturer of STUDIO Collection® Architectural Design Resin.

The purpose of this guide is to assist the specifier in correctly identifying the STUDIO Collection® Architectural Design Resin panels for a wide range of architectural 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 a STUDIO Collection® 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 06 06 60 (06600) SCHEDULES FOR PLASTIC FABRICATIONS

STUDIO Collection® Architectural Design Resin Panels

PART 1 - GENERAL

1.1 SECTION INCLUDES

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

- A. Architectural Design Elements
- B. Artwork
- C. Backlit Countertops
- D. Backlit Panels, Walls & Ceilings
- E. Backsplashes
- F. Balustrade Panels
- G. Bar Fronts
- H. Cabinets & Cabinet Doors
- I. Ceiling Panels
- J. Closet Doors
- K. Door Lights
- L. Doors
- M. Elevator Cabs
- N. Feature Walls
- O. Fixtures
- P. Furniture
- Q. Lighting
- R. Partitions
- S. Projection Screens
- T. Sculpture
- U. Shelving
- V. Shower Enclosures
- W. Sidelights

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- X. Indoor Signage
- Y. Tabletops
- Z. Transaction Tops
- AA. Vanity Tops
- BB. Wall Cladding
- CC. Wall Panels, Backlit & Opaque
- DD. Wall Sculpture
- EE. Whiteboards
- FF. Worktops
- GG. **[SPECIFIER NOTE: Insert Item]**

1.2 REFERENCES

A. ASTM International

1. ~~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.
2. ~~ASTM D-790; Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.~~
3. ~~ASTM D792; Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement~~
4. ~~ASTM D6110; Standard Test Method for Determining the Charpy Impact Resistance of Notched Specimens of Plastics~~
2. ~~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~~
- 3-5. ~~ASTM D-2583; Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor.~~
6. ~~ASTM G21 Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi~~
7. ~~ASTM G22 Standard Practice for Determining Resistance of Plastics to Bacteria~~
8. ~~ASTM G22 Standard Practice for Determining Resistance of Plastics to Bacteria~~

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B. International Cast Polymer Association

1. ~~ANSI/ICPA SS-1; Performance Standard for Solid Surface Materials.~~

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C. International Surface Fabricators Association

1. ~~ISFA 2-01;; Classification and Standards for Solid Surfacing Materials~~
4. ~~National Electrical Manufacturers Association~~

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D.

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

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E. NSF International

- 5-1. ~~NSF/ANSI 51; Food Equipment Materials~~

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1.3 SUBMITTALS

- A. Refer to Section *[01 33 00 Submittal Procedures]* *[Insert section number and title].*

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- B. Product Data: Submit manufacturer's current product literature for each product indicated. [\[www.aristechsurfaces.com/studiocollection\]](http://www.aristechsurfaces.com/studiocollection)
- C. Samples: *[Provide a four-inch square color sample for products indicated.] [Provide color literature showing colors of actual material if products are not provided.]*
- D. Shop Drawings: Include details, and attachments to other work.
 - 1. Submit shop drawings showing seams, termination points, and details of edges.
 - 2. Submit coordination drawings indicating electrical and plumbing work.
- E. LEED v4 Submittal:

[SPECIFIER NOTE] MAINTAIN appropriate LEED submittal requirements when project is to be LEED v4 registered.)

- 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.
Regional

- F. Manufacturer Instructions: Provide manufacturer's written installation instructions. [\[www.aristechsurfaces.com/studiocollection\]](http://www.aristechsurfaces.com/studiocollection)
- G. Installer Certification: Submit a signed copy of the installer's certificate, acknowledging the employee has been trained and approved by manufacturer.
- H. Closeout Submittals
 - 1. Refer to Section *[01 78 00 Closeout Submittals]* *[Insert section number and title]*.

1.4 QUALITY ASSURANCE

- A. Design resin sheets are certified Indoor Advantage™ Gold by SCS Global Services.
- B. Installer Qualifications: Manufacturer approved installer shall fabricate and install architectural design resin products and demonstrate successful experience in installing finished carpentry items similar in type and quality to those required for this project.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Refer to Section *[01 60 00 Product Requirements]* *[Insert section number and title]*.
- B. Deliver sheets, fabricated items, materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.

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- C. Store design resin products and accessories as recommended by manufacturer, in storage and handling section of the fabrication guide. [www.aristechsurfaces.com/studiocollection]

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 MANUFACTURER

- A. STUDIO Collection® Architectural Design Resin 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.

2.2 ARCHITECTURAL DESIGN RESIN MATERIAL

[SPECIFIER NOTE: Using a basis of design is acceptable when writing a proprietary specification or when including accepted equivalent products. The Recycled Palette in the STUDIO Collection® materials have 40% recycled content. MAINTAIN the project specific products.]

- A. Basis of Design: [STUDIO Collection® Architectural Resin – Recycled] [STUDIO Collection® Architectural Resin – Non-Translucent] [STUDIO Collection® Architectural Resin - Translucent] by Aristech Surfaces LLC.
- B. Description: Non-porous, hygienic, homogeneous material maintaining the same composition throughout the product with a composition of polyester or acrylic polymer, aluminum trihydrate filler and pigment.
- C. Thickness: [12mm] [6mm]
- D. Color: [Insert COLOR Name/Color Code] [To be selected by Architect] [As indicated on Drawings]
- E. Sheet Size: [Nominal 36 in. x 120 in. (Standard Sheet Size)]

[SPECIFIER NOTE: Listed characteristics are minimum standards for the design resin industry. MAINTAIN the performance characteristics of the material selection. DELETE performance characteristics of materials not project specific.]

- F. Performance Characteristics based on 12mm thickness: [*STUDIO Collection® Architectural Resin – Recycled*] [*STUDIO Collection® Architectural Resin – Non-Translucent*]
 1. Thickness: 12mm when tested in accordance with ASTM
 2. Specific Gravity: 99.89 lbs/ft³.
 3. Hardness: 53, when tested in accordance with ASTM D2583
 4. Flexural strength: 5,570 psi, when tested in accordance with ASTM D790
 5. Flexural Modulus: 9.76 x 10⁵ psi when tested in accordance with ASTM D790

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6. Water Absorption after 24 hours: 0.05 %, when tested in accordance with ASTM D570
7. Charpy Impact ~~Foot Pounds per Inch~~: 0.7 ft.lb/in, when tested in accordance with ASTM D6110
8. Impact Resistance 1/2 Pound: No Fracture at a height > 150 in, when tested supported in accordance with NEMA LD3-3.3
9. Linear Thermal Expansion, in/in/°F: 2.1×10^{-5} , when tested in accordance with ASTM D696
10. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
11. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
12. Stain Resistance: No Effect, when tested in accordance with ~~ANZI~~ANSI/ICPA SS-1
13. Weight per sq. ft., 12mm thickness: ~~3.934~~4.6 pounds
14. Food Zone use: Approved, when tested to NSF 51 ~~S~~standards.
15. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
16. 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.)

~~17. Recycled Content: Minimum 40%~~

[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].

~~18. 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.~~

~~19. Flame-Spread Index of 20 when tested in accordance with ASTM E84.~~

~~17.~~

G. Performance Characteristics based on 12mm thickness [*STUDIO Collection® Architectural Resin – Translucent/Glass*]

1. Thickness: 12mm when tested in accordance with ASTM
2. Specific Gravity: 81.125 lbs/ft³.
3. Hardness: 48, when tested in accordance with ASTM D2583
4. Flexural strength 4,100 psi, when tested in accordance with ASTM D790
5. Flexural Modulus: 6.55×10^5 psi when tested in accordance with ASTM D790
6. Water Absorption after 24 hours: 0.04 %, when tested in accordance with ASTM D570
7. Charpy Impact ~~Foot Pounds per Inch~~: 0.5 ft.lb/in, when tested in accordance with ASTM D6110
8. Impact Resistance 1/2 Pound: No Fracture at height > 150 in when tested supported in accordance with NEMA LD3-3.3
9. Linear Thermal Expansion, in/in/°F: 2.9×10^{-5} , when tested in accordance with ASTM D696
10. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
11. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
12. Stain Resistance: No Effect, when tested in accordance with ~~ANZI~~ANSI/ICPA SS-1
13. Weight per sq. ft., 12mm thickness: ~~3.1938~~ pounds
14. Food Zone use: Approved, when tested to NSF 51 ~~S~~standards.
15. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
- ~~16. Fungi Resistance: No Growth, when tested in accordance with ASTM G21.~~

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[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].

- 17. 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.
- 18. Flame-Spread Index of 20 when tested in accordance with ASTM E84.
- 46. —

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H. Performance Characteristics based on **6mm** thickness [STUDIO Collection® Architectural Resin – Translucent/Glass]

- 1. Nominal Thickness: 6mm when tested in accordance with ASTM
- 2. Specific Gravity: 78.67 lbs/ft³.
- 3. Hardness: 48, when tested in accordance with ASTM D2583
- 4. Flexural strength 7,100 psi, when tested in accordance with ASTM D790
- 5. Flexural Modulus: 6.34 x 10⁵ psi when tested in accordance with ASTM D790
- 6. Water Absorption after 24 hours: 0.08 %, when tested in accordance with ASTM D570
- 7. Charpy Impact Foot Pounds per Inch: 0.78, when tested in accordance with ASTM D6110
- 8. Impact Resistance 1/2 Pound: No Fracture at height > 30 in when tested supported in accordance with NEMA LD3-3.8
- 9. Linear Thermal Expansion, in/in/°F: 2.9 x 10⁻⁵, when tested in accordance with ASTM D696
- 10. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
- 11. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
- 12. Stain Resistance: Passes, when tested in accordance with ANZ/ANSI/ICPA SS-1
- 13. Weight per sq. ft., 6mm thickness: 1.55 pounds
- 14. Food Zone use: Approved, when tested to NSF 51 Standards.
- 15. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
- 16. 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].

- 17. Smoke-Developed Index: 850 when tested in accordance with ASTM E84.
 - 18. Flame-Spread Index of 90 when tested in accordance with ASTM E84.
 - 46. —
- I. Performance Characteristics based on **6mm** thickness [STUDIO Collection® Architectural Resin – Recycled/Non-Translucent]

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- 1. Nominal Thickness: 6mm when tested in accordance with ASTM
- 2. Specific Gravity: 99.3 lbs/ft³.
- 3. Hardness: 57, when tested in accordance with ASTM D2583
- 4. Flexural strength 7,500 psi, when tested in accordance with ASTM D790
- 5. Flexural Modulus: 1.279 x 10⁵ psi when tested in accordance with ASTM D790
- 6. Water Absorption after 24 hours: 0.04 %, when tested in accordance with ASTM D570
- 7. Charpy Impact Foot Pounds per Inch: 0.55, when tested in accordance with ASTM D6110
- 8. Impact Resistance 1/2 Pound: No Fracture at height > 36 in when tested supported in accordance with NEMA LD3-3.8
- 9. Linear Thermal Expansion, in/in/°F: 2.1 x 10⁻⁵, when tested in accordance with ASTM D696

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10. High Temperature Resistance: No Effect, when tested in accordance with ISFA 2-01
11. Boiling Water Resistance: No Effect, when tested in accordance with ISFA 2-01
12. Stain Resistance: Passes, when tested in accordance with ANZIANSI/ICPA SS-1
13. Weight per sq. ft., 6mm thickness: 1.95 pounds
14. Food Zone use: Approved, when tested to NSF51 standards.
15. Bacterial Resistance: No Growth, when tested in accordance with ASTM G22.
16. 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].

17. 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.
18. Flame-Spread Index of 5 when tested in accordance with ASTM E84.

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2.3 ACCESSORIES

- A. Silicone Sealant: Mildew-resistant, FDA-compliant, 100% silicone sealant recommended by manufacturer

2.4 FABRICATION

- A. Design resin shall be finished and fabricated by an Aristech Surfaces LLC authorized fabricator.
- B. Product is supplied unfinished; specify and communicate desired finish to fabricator.
- C. Fabricate using [12mm] [6mm] thick material unless otherwise indicated.
- D. Architectural design resin shall be fabricated to field measurements.
- E. Cut and finish component edges with clean, sharp returns.
- F. Finished edges shall have a 1/16-inch radius

EXECUTION

2.5 EXAMINATION

- A. Inspect materials and location of installation for conditions affecting performance of work in accordance with shop drawings.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

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2.6 INSTALLATION

- A. Install design resin in accordance with manufacturer's installation guidelines and recommendations. www.aristechsurfaces.com/studiocollection

2.7 CLEANING AND PROTECTION

- A. Remove adhesives, sealants and other stains.
- B. Protect installed design resin from damage. Repair or replace damaged work, to Architects' satisfaction.

END OF SECTION

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