# **DIVISION 6**

# WOOD AND PLASTIC

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- PART 1 GENERAL
- 1.01 SECTION INCLUDES
  - A. Blocking in wall openings.
  - B. Wood furring and grounds.
  - C. Preservative treatment of wood.

#### 1.02 REFERENCES

- A. ALSC (American Lumber Standards Committee) Softwood Lumber Standards.
- B. APA (American Plywood Association).
- C. AWPA (American Wood Preservers Association) C1 All Timber Products Preservative Treatment by Pressure Process.
- D. AWPA (American Wood Preservers Association) C20 Structural Lumber Fire Retardant Treatment by Pressure Process.
- E. NFPA (National Forest Products Association).
- F. RIS (Redwood Inspection Service).
- G. SPIB (Southern Pine Inspection Bureau).
- H. WCLIB (West Coast Lumber Inspection Bureau).
- I. WWPA (Western Wood Products Association).

#### 1.03 QUALITY ASSURANCE

- A. Perform Work in accordance with the following agencies:
  - 1. Lumber Grading Agency: Certified by ALSC.
  - 2. Plywood Grading Agency: Certified by APA.

## 1.04 SUBMITTALS

A. Product Data: In accordance with Section 01330, submit manufacturer's certification for pressure-treated and fire-treated lumber.

#### PART 2 PRODUCTS

#### 2.01 MATERIALS

- A. Lumber Grading Rules: WCLIB and WWPA.
- B. Miscellaneous Framing: Stress Group D, S.P.F. species, 19 percent maximum moisture content, pressure preservative treat when wood is in contact with concrete, masonry or metal.

#### 2.02 ACCESSORIES

- A. Fasteners and Anchors:
  - 1. Fasteners: Hot dipped galvanized steel for high humidity and treated wood locations, unfinished steel elsewhere.
  - 2. Anchors: Toggle bolt type for anchorage to hollow masonry. Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Bolt or ballistic fastener for anchorages to steel.

# 2.03 FACTORY WOOD TREATMENT

- A. Wood Preservative (Pressure Treatment) EPA Approved: AWPA Treatment C1 using water borne preservative with 0.060 L.I.S. CF retainage.
  - 1. Products treated with "CCA" (chromated copper arsenate) will not be permitted.
  - 2. "ACQ" (amine copper qust) or "CBA" (copper baron azole) treated products will be acceptable.

#### PART 3 EXECUTION

## 3.01 FRAMING

- A. Set members level and plumb, in correct position.
- B. Place horizontal members, crown side up.
- C. Space framing and furring 16 inches oc.

## END OF SECTION

# PART 1 GENERAL

## 1.01 RELATED DOCUMENTS

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

## 1.02 SUMMARY

- A. This Section includes the following horizontal and trim solid surface product types:
  1. Window stools and aprons.
- B. Related Sections include the following:
  - 1. Section 06114 Wood Blocking and Curbing

## 1.03 DEFINITION

A. Solid surface is defined as nonporous, homogeneous material maintaining the same composition throughout the part with a composition of acrylic polymer, aluminum trihydrate filler and pigment.

# 1.04 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, thermoforming requirements, attachments, etc.
    - b. Show locations and sizes of furring, blocking, including concealed blocking and reinforcement specified in other Sections.
    - c. 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. Cut sample and seam together for representation of inconspicuous seam.
    - c. 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. Fabricator/installer qualifications:
  - 1. Provide copy of certification number.
- F. Manufacturer certificates:
  - 1. Signed by manufacturers certifying that they comply with requirements.
- G. Maintenance data:
  - 1. Submit manufacturer's care and maintenance data, including repair and cleaning instructions.
    - a. Maintenance kit for finishes shall be submitted.

2. Include in project closeout documents.

# 1.05 QUALITY ASSURANCE

- A. Qualifications:
  - 1. Shop that employs skilled workers who custom fabricate products similar to those required for this project and whose products have a record of successful in-service performance.
- B. Fabricator/installer qualifications:
  - 1. Work of this section shall be by a certified fabricator/installer, certified in writing by the manufacturer.
- C. Applicable standards:

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- 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.

1.06 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.

# 1.07 WARRANTY

- A. Provide manufacturer's warranty against defects in materials.
  - 1. Warranty shall provide material and labor to repair or replace defective materials.
  - 2. Damage caused by physical or chemical abuse or damage from excessive heat will not be warranted.
- B. Optional Installed Warranty:
  - 1. To qualify for the optional Installed Warranty, fabrication and installation must be performed by a DuPont Certified Fabrication/Installation source who will provide a brand plate for the application.
  - 2. This warranty covers all fabrication and installation performed by the certified/approved source subject to the specific wording contained in the Installed Warranty Card.
- C. Manufacturer's warranty period: 1. Ten years from date of substantial completion.

# 1.08 MAINTENANCE

A. Provide maintenance requirements as specified by the manufacturer.

# PART 2 PRODUCTS

# 2.01 MANUFACTURERS

- A. Manufacturers:
  - 1. Subject to compliance with requirements, provide products by one of the following: a. Corian® surfaces from the DuPont company (basis of design).
    - b. Substitutions: Under provisions of Section 01600

# 2.02 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: 1/2 inch
- C. Edge treatment: 1. No Drip
- D. Performance Characteristics:

Property Tensile Strength Tensile Modulus	Typical Result 6,000 psi 1.5 x 10 <sup>-6</sup> psi	Test ASTM D 638 ASTM D 638
Tensile Elongation Flexural Strength Flexural Modulus Hardness	0.4% min. 10,000 psi 1.2 x 10 <sup>-6</sup> psi >85	ASTM D 638 ASTM D 790 ASTM D 790 Rockwell "M" Scale ASTM D 785
Thermal Expansion	56 3.02 x 10 <sup>-5</sup> in./in./°C	Barcol Impressor ASTM D 2583 ASTM D 696
I the second sec	(1.80 x 10 <sup>-5</sup> in./in./°F)	
Gloss (60° Gardner)	5–75 (matte—highly polished)	ANSI Z124
Light Resistance	(Xenon Arc) No effect	Method 3.3
Wear and Cleanability	Passes	ANSI Z124.3 &
Stain Resistance: Sheets	Passes	ANSI Z124.3 & 7.124.6
Fungus and Bacteria Resistance Boiling Water Resistance	Does not support microbial growth No visible change	ASTM G21&G22 NEMA LD 3-2000 Method 3 5
High Temperature Resistance	No change	NEMA LD 3-2000 Method 3 6
Izod Impact (Notched Specimen)	0.28 ftlbs./in. of notch	ASTM D 256 (Method A)
Ball Impact	No fracture—1/2 lb. ball:	NEMA LD 3-2000
Resistance: Sheets	1/4" slab—36" drop 1/2" slab—144" drop	Method 3.8
Weatherability Specific Gravity †	$\Delta E_{94}^* < 5$ in 1,000 hrs. 1.7	ASTM G 155

Shepherd University SOLID SURFACE FABRICATIONS - Student Ctr - Window & Door Replacement

Water Absorption	Long-term	ASTM D 570
	0.4% (3/4")	
	0.6% (1/2")	
	0.8% (1/4")	
Toxicity	99 (solid colors)	Pittsburgh Protocol
	66 (patterned colors)	Test ("LC50"Test)
Flammability	All colors	ASTM E 84,
	(Class I and Class A)	NFPA 255 &
		UL 723
Flame Spread Index	<25	
Smoke Developed Index	<25	

Approximate weight per square foot: 1/4" (6 mm) 2.2 lbs., 1/2" (12.3 mm) 4.4 lbs.
 Shapes meet or exceed the ANSI Z124.3 and ANSI Z124.6 standards for plastic sinks and lavatories.
 NEMA results based on the NEMA LD 3-2000

#### 2.03 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, FDA-compliant, NSF 51-compliant (food zone any type), UL-listed silicone sealant in colors matching components.

#### 2.04 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.
    - a. Reinforce with strip of solid polymer material, 2" wide.
  - 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.

## 2.05 FINISHES

- A. Color: Corian Sahara
- B. Finish: Matte- Gloss range of 5-20

#### PART 3 EXECUTION

- 3.01 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.

## 3.02 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. Êxposed 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 stools 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 stools with no more than 1/8-inch (3 mm) sag, bow or other variation from a straight line.

## 3.03 REPAIR

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

# 3.04 CLEANING AND PROTECTION

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

# END OF SECTION