

## SECTION 06 40 00

### TEKSTUR PAPER COMPOSITE PANELS

Tekstur; Patterned Architectural Surfaces.

This section specifies products made by:

Tekstur

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Richmond, VA 23230

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[www.tekstur.com](http://www.tekstur.com)

This section specifies decorative paper composite material for surfacing. The same material can be used for a wide variety of finishes, similar to natural wood, including windowsills wainscoting & other architectural millwork.

"Paper Composite" is made by pressing and heat-curing paper, from wood pulp with phenolic resin. While scratch and abrasion resistant, a separate cutting surface is recommended. Heat resistant to 350 degrees F, it will not melt, and no additional protection is required by stoves. Very durable and strong, it can use for long spans and cantilevers without additional support. Stain resistance is better with sealed surface, and generally good except for strong alkalis and strong oxidizing acids. Damaged surfaces can be refinished or replaced. It does not support colonization of bacteria and is easily washable, and therefore well suited to commercial kitchens.

This section is intended to be used in conjunction with other sections specifying cabinets and casework. It can also be used alone for wall-mounted counters, such as vanities.

#### PART 1 GENERAL

The paragraphs following this article title should be brief descriptions of types of work included in the section. These paragraphs are informational only and are intended to help the contractor identify the scope of each section.

##### 1.1 SECTION INCLUDES

A. Wall Panels for architectural millwork.

B. Facing for manufactured casework.

C. Backsplashes.

E. Trim & Sills.

List sections that are referenced directly in this section; indicate specific items. Do not list sections that specify installation of products included in this section; include a cross reference statement in Part 3. Do not list sections that specify products for which installation is specified in this section; include a cross reference statement in Part 2.

## 1.2 RELATED SECTIONS

A. Section 06410 - Custom Cabinets.

B. Section 12355- Residential Casework.

List reference standards that are included within the text of this section. Use the full title as listed in the standard itself. Include as author the full name of the sponsoring organization, unless the acronym is an adequate identifier (ASTM, ANSI, NEMA, etc.). Include the date of publication if consistent with global decision on publication dates.

## 1.3 REFERENCES

A. ANSI A208.1 - American National Standard for Particleboard; 1999.

B. ANSI A208.2 - American National Standard for Medium Density Fiberboard for Interior Use; 2002.

C. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2004.

D. AWI/AWMAC (QSI) - Quality Standard Illustrated; Architectural Woodwork Institute and Architectural Woodwork Manufacturers Association of Canada; 2003.

E. PS 1 - Construction and Industrial Plywood; 1995.

F. WI (MAN) - Manual of Millwork; Woodwork Institute; 2003.

G. Forest Stewardship Council (FSC-US), Information regarding FSC in LEED Projects

H. LEED® US Green Building Council, Leadership in Energy and Environmental Design Green Building Rating System™

## 1.4 SUBMITTALS

A. See Section 01300 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Specimen warranty.

4. MSDS for finish sealer.

C. Shop Drawings: Complete details of materials and installation; combine with shop drawings of cabinets and casework specified in other sections.

Do not include selection samples if colors have already been selected.

Actual product samples, if not newly manufactured, will have aged to some extent, and the color will have deepened, as is the nature of the material; specify new material if this is a concern.

Delete one of the following two paragraphs.

D. Selection Samples: For each finish product specified, color chips representing manufacturer's full range of available colors.

E. Selection Samples: For each finish product specified, product samples representing manufacturer's full range of available colors.

F. Selection Samples: For each finish product specified, product samples of newly manufactured material representing manufacturer's full range of available colors.

G. Verification Samples: For each finish product specified, minimum size 6 inches (150 mm) square, representing actual product, color, patterns, and edge profile.

Include the following paragraph only if LEED Certification is being pursued.

H. LEED Report:

1. Credit MR 4.1, 4.2: Submit documentation for percentage of pre-consumer or post-consumer recycled content, indicate percentage of recycled content, unit cost of product, and quantity of product furnished on project.

Richlite is manufactured in Tacoma, Washington.

2. Credit MR 5.1-5.2: Submit documentation of locally-sourced products (manufacture within 500 miles of project site); certify location of harvest and manufacture.

3. Credit MR 6.1: Submit documentation for rapidly renewable content (product made from plants having less than 10 years between planting and harvesting); indicate percentage of rapidly renewable content, unit cost of product, and quantity of product furnished on project.

4. Credit MR 7: Submit documentation for Certificates of chain-of-custody signed by manufacturers certifying products specified to be made from certified wood were made from certified wood obtained from forests certified by an FSC-accredited certification body to comply with FSC1.2 Principles and Criteria.

5. Credit IEQ 4.4: Submit documentation for paper products made without formaldehyde; certify that product is formaldehyde-free.

I. Installation Instructions: Manufacturer's installation instructions and recommendations.

J. Maintenance Data: Manufacturer's instructions and recommendations for maintenance and repair of panel surfaces.

#### 1.5 QUALITY ASSURANCE

A. Fabricator Qualifications: Authorized fabricator by material manufacturer.

B. Installer Qualifications: Fabricator.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

#### 1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

### PART 2 PRODUCTS

At present, Tekstur, is the only manufacturer of this unique product.

#### 2.1 MANUFACTURERS

A. Tekstur Architectural Panels: [www.tekstur.com](http://www.tekstur.com).

Delete one of the following two paragraphs.

B. Substitutions: See Section 01600 - Product Requirements.

C. Substitutions: Not permitted.

#### 2.2 Wall Panels

A. Wall Panels: Surfaced with paper composite sheet.

Minimum warranted thickness for wall panels is 5/16" thick. Thicker sheets are often used for aesthetic reasons or for specialty millwork applications.

1. Flat Sheet Thickness: 5/16" Minimum.

Matte (lowest gloss) finish is the only finish available as manufactured. Surface sealer is highly recommended for resiliency of surface appearance.

6. Finish on Exposed Surfaces: Matte, buffed during fabrication or in the field with surface sealer.

Colors are solid with fiber striation, which gives the material a "mottled" look. The effect is less marked in darker colors and in composite made with hempen fibers. As the material ages, the color will deepen and take on a soft patina. This is due to the darkening of the resin. The range of available colors depends on the available colors of the paper pulp used. Uncolored paper pulp will yield the pale amber of the new resin that ages to a sienna brown.

7. Color: As selected from manufacturer's standard selection.

8. Color: \_\_\_\_\_.

9. Exposed Edge Treatment: Same thickness as countertop.

a. Profile: Square edge..

10. Back Splashes: Same sheet material as countertops.

a. Thickness: 1/8", ¼" or 5/16"

b. Top Profile: Square.

Standard backsplash heights are 4, 5, and 6 inches.

e. Height: \_\_\_\_\_ inch (\_\_\_\_\_ mm), minimum.

f. Color: As indicated on drawings.

11. Skirts: As indicated on drawings.

Paper composite is heavy; if using for cabinet facing, be sure that cabinets and hardware will hold the extra weight. Use European cup hinges for door hinging.

B. Other Components: 1/2 inch (12 mm) thick, minimum.

### 2.3 MATERIALS

"Paper Composite" is comprised of cellulose fiber and phenolic resin. The cellulose is delivered as paper pulp derived from trees with some recycled paper or wood, or from hemp, as available from pulp manufacturers. While it is homogenous throughout its thickness in composition and color, it is not a poured surface. The layers of paper and resin are pressed and heat cured into a solid material.

A. Paper Composite Sheets: Cellulose fiber paper heat pressed with phenolic resin; color consistent throughout thickness.

1. Surface Burning Characteristics: Flame spread 30, maximum; smoke developed 30, maximum; when tested in accordance with ASTM E 84.

2. Density: 75.84 pounds per cu ft (1215 kg per cu m).

3. Water Absorption: 0.36 percent for 1 inch (25 mm) thickness, unsealed material, 24 hour fully submerged test.

4. Specific Gravity: 1.213.

5. Thermal Properties:

- a. Coefficient of Thermal Expansion, X Direction: 5.2 microinches per inch degree F (9.4 microns per mm degree C).
- b. Coefficient of Thermal Expansion, Y Direction: 12.8 microinches per inch degree F (23.0 microns per mm degree C).
- c. Coefficient of Thermal Expansion, Z Direction: 45.9 microinches per inch degree F (82.7 microns per mm degree C), for span of 73.5 inches (1.87 m).
- d. Thermal Conductivity: 0.00051 Cal cm/sq cm sec degree C.
- 6. Tensile Strength:
  - a. X Direction: 19,200 psi (132.4 MPa).
  - b. Y Direction: 13,100 psi (90.3 MPa).
- 7. Compressive Strength:
  - a. X Direction: 18,400 psi (126.9 MPa); 7.09 percent strain at failure.
  - b. Y Direction: 15,900 psi (109.6 MPa); 7.15 percent strain at failure.
  - c. Z Direction: 30,000 psi (206.8 MPa); 20 percent strain at failure.
- 8. Flexural Strength, Face in Tension:
  - a. X Direction: 22,000 psi (151.7 MPa).
  - b. Y Direction: 17,300 psi (119.3 MPa).
- 9. Flexural Strength, Edge in Tension:
  - a. X Direction: 20,400 psi (140.6 MPa).
  - b. Y Direction: 16,100 psi (111.0 MPa).
- 10. Izod Impact, Face Impact:
  - a. X Direction: 2.48 ft lb per inch of width (0.046 J/m of width).
  - b. Y Direction: 1.46 ft lb per inch of width (0.027 J/m of width).
- 11. Izod Impact, Edge Impact:
  - a. X Direction: 0.68 ft lb per inch of width (0.013 J/m of width).
  - b. Y Direction: 0.62 ft lb per inch of width (0.012 J/m of width).

B. Adhesives: Chemical resistant two-part epoxy waterproof adhesive as recommended by manufacturer.

C. Joint Sealant:

- 1. Sealant Type: Mildew-resistant silicone.
- 2. Sealant Type: Silicone.
- 3. Sealant Type: \_\_\_\_\_.
- 4. Color: White.
- 5. Color: Clear.
- 6. Color: \_\_\_\_\_.

## 2.4 FABRICATION

A. Fabricate in accordance with standards governing fabrication quality in accordance with AWI's Manual of Millwork.

B. Fabricate in accordance with standards governing fabrication quality in accordance with AWI's Quality Standard Illustrated.

C. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.

1. Join lengths of tops using best method recommended by manufacturer.
2. Fabricate to overhang fronts and ends of cabinets 1 inch (25 mm) except where top butts against cabinet or wall.
3. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.

Seams will be somewhat visible, and should be incorporated into the design. Smaller surfaces may be fabricated seamlessly.

4. Place seams to run full width of countertop, and at natural positions such as corners and midpoints as indicated on drawings.

5. Cut and place sections with the grain of the material running crosswise to the width of the surface.

E. Provide back/end splash wherever counter edge abuts vertical surface unless otherwise indicated.

1. Secure to countertop with concealed fasteners and with contact surfaces set in waterproof glue.

Delete two of the following three paragraphs.

2. Height: 4 inches (102 mm), unless otherwise indicated.

3. Height: 3-1/2 inches (90 mm), unless otherwise indicated.

4. Height: \_\_\_\_ inches (\_\_\_\_ mm), unless otherwise indicated.

## PART 3 EXECUTION

### 3.1 EXAMINATION

A. Do not begin installation until substrates and wall surfaces have been properly prepared, plumb and level.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Verify that wall surfaces have been finished and mechanical and electrical services and outlets are installed in proper locations.

### 3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

- A. Securely attach panels to wall surfaces using preferred fastening method. Make flat surfaces level; shim where required.
  - a. Face Fasten into structural wall members
  - b. Button-Fix
  - c. Monarch Z Clip
  - d. PL Premium: 1/8" thick material applied directly to wall surface

B. Seal joint between back/end splashes and vertical surfaces.

1. Where indicated use cove molding.
2. Where applied cove molding is not indicated use specified sealant.

### 3.4 CLEANING AND PROTECTION

A. Clean surfaces thoroughly with water and lint free rag

B. Protect installed products until completion of project.

C. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

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