

Wall Protection ›

## CSI Specifications

### PART 1—GENERAL

#### 1.1 Section Includes

- A. Protective wall covering
- B. Door push plates
- C. Kick/push plates

#### 1.2 Submittals

- A. General: Submit the following in accordance with conditions of contract and Division 1 specification section 01 33 00 "Submittal Procedures".
- B. Product Data: Indicate product description, fabrication information, and compliance with specified performance requirement.
- C. Submit material test results or certifications indicating each type and class of panel system complies with the project performance requirements.
  - a. Test results required are:
    - i. Rate of Burning (ASTM D 635)
    - ii. Self-Ignition Temperature (ASTM D 1929)
    - iii. Density of Smoke (ASTM D 2843)
    - iv. Flame Spread and Smoke Developed (ASTM E 84)
    - v. Room Corner Burn Test (NFPA 286)
    - vi. Impact Strength (ASTM D 3763)
    - vii. Bacteria and Fungal Resistance (ASTM G21 and G22)
  - b. Certifications
    - i. Certified Recycled Content
    - ii. Greenguard Indoor Air Quality
- E. Samples for Initial Selection:
  - a. Submit minimum 8 inch by 8 inch samples
  - b. Indicate full color, texture and pattern variation.
  - c. Approved samples will be retained as standards for work.
- F. Samples for Verification:
  - a. Submit minimum 8 inch by 8 inch sample for each type, texture, pattern and color of Resin.
- G. Mockups:
  - a. Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects.
  - b. Approved mockups may become part of the completed work if undisturbed at time of substantial completion.
- H. Maintenance Data: Submit manufacturer's care and maintenance data, including care, repair and cleaning instructions. Include in Project closeout documents.

#### 1.3 Quality Assurance

- A. Manufacturer's Qualifications
  - 1. Manufacturer must demonstrate leadership in the field of resin encapsulation with patents or similar proof of ownership of intellectual property or expertise.
  - 2. Materials and systems shall be manufactured by a company continuously and regularly employed in the manufacture of specified materials for a period of at least 7 consecutive years.
  - 3. Manufacturer must offer access to a network of recycling centers nationwide to recycle panels at the end of life with minimal travel distance to reduce carbon impact. Return process is preceded by the requirements in Section 02 42 00 Removal and Salvage of Construction Materials.

## B. Performance Criteria

- |  |                             |
|--|-----------------------------|
| 1. Rate of Burning (ASTM D 635)                      | CC1                         |
| 2. Self-Ignition Temperature (ASTM D 1929) Minimum   | 900°F                       |
| 3. Density of Smoke (ASTM D 2843)                    | Maximum 75%                 |
| 4. Flame Spread (ASTM E 84)                          | Maximum Flame Spread 60     |
| 5. Smoke Developed (ASTM E 84)                       | Maximum Smoke Developed 450 |
| 6. Room Corner Burn Test (NFPA 286)                  | Pass (up to 3/8" Gauge)     |
| 7. Impact Strength (ASTM D 256)                      | 1.7 ft-lb/in                |
| 8. Safety Glazing Impact Resistance(ANSI Z97.1-2004) |                             |
| 9. Bacteria and Fungal Resistance (ASTM G21 and G22) | No Growth                   |

## C. Certification Requirements

- |                                  |                             |
|----------------------------------|-----------------------------|
| 1. Certified Recycled Content    | Minimum 40% Post Industrial |
| 2. Greenguard Indoor Air Quality | Pass                        |

## D. Allowable Tolerances:

1. Thickness: ±10%
2. Height/Width: ±1/2"

## 1.4 Delivery, Storage & Handling

- A. Delivery: Deliver no components to project site until areas are ready for installation.
- B. Handling:
  - a. Handle materials to prevent damage to finished surfaces and edges.
  - b. Keep protective masking in place while fabricating.
  - c. Provide protective coverings to prevent damage or staining following installation for duration of project.
- C. Storage:
  - a. Store components flat (do not stand sheet on end) in a clean and dry area where temperature is maintained above 50° F (10° C). Material should be stored in original containers.
  - b. Follow Manufacturers recommendations for storage and handling.
  - c. Before installing Resin Fabrications, permit them each to reach room temperature for a minimum of 24 hours.

## 1.5 Environmental Requirements

- A. Allow Lumiform panels and adhesive to precondition for at least 24 hours at a minimum temperature of 65°F (18°C) but not exceeding 85°F (29°C) prior to beginning installation.
- B. Wall temperature during installation should be a minimum of 65°F (18°C) and a maximum of 85°F (29°C).
- C. Temperature of installation area should be maintained throughout course of installation at a minimum of 65°F (18°C) however, 75°F (24°C) is preferable.
- D. High humidity will lengthen the curing time of adhesives. Do not install if relative humidity is greater than 80%.
- E. After installation, do not expose walls to elevated temperatures or direct sunlight. This may result in wall surface temperatures in excess of 100°F (38°C), which may cause blistering and distortion of the Lumiform.

## PART 2—PRODUCTS

### 2.1 Manufacturer

- A. Manufacturer: Lumicor, Inc., Renton, WA, USA / 888-LUMICOR / www.lumicor.com
- B. Local Sales Representative contact information:

### 2.2 Protective Wallcovering

- A. Material: Lumiform™
  - a. Engineered PETG resin with a minimum of 40% post industrial recycled content.
  - b. Sheet Size: Standard 4' x 8'
  - c. Thickness: Minimum .045", Maximum. 118"
  - d. Finish: Satin/Satin
  - e. Fire Rating: Class A
  - f. Options
    - i. UV Block™ (UV protection layer)
    - ii. Opaque™ (light blocking layer)

g. Basis of Design Product: The design of Resin Fabrications is based on Lumiform™ panels as provided by Lumicor, Inc. Products from other manufacturers must be approved by the Architect or Designer prior to bidding in accordance with the Instructions to Bidders and Section 10 60 00 "Product Requirements".

**B. Description:**

Minimum [thickness per Lumicor recommendation] Lumiform™, \_\_\_\_\_ color, \_\_\_\_\_ part number, cut to size, and installed per architect's drawings.

**C. Interlayer Materials:** Compatible with acrylic and bonding process to create a monolithic sheet of material when complete.

**2.3 Adhesives**

- A. 3M Fastbond Contact Adhesive 30-NF
- B. Forbo L910 Linoleum Adhesive
- C. Titebond GREENchoice Fast Grab FRP Adhesive

**2.4 Accessories**

- A. Trim/Mouldings: Compatible with gauge and bonding process per Lumicor recommendations.
- B. Silicone Sealant

**PART 3—EXECUTION**

**3.1 Examination**

A. Examine substrates, areas, and conditions where installation of Resin Fabrications will occur, with Installer present, for compliance with manufacturer's requirements. Verify that substrates and conditions are satisfactory for installation and comply with requirements specified.

**3.2 Surface Preparation**

- A. Surfaces to be covered must be clean, relatively smooth, dry and structurally sound.
- B. Loose paint or other wallcoverings must be removed.
- C. In order to ensure maximum smoothness of installation, nail heads, nicks, gouges, and other surface imperfections should be sanded smooth and sealed. No sealing needed for Titebond Greenchoice Fastgrab FRP adhesive.
- D. On new walls, dry wall joints should be taped, bedded and sanded smooth.
- E. Mold and mildew require moisture in order to grow and therefore it is important to check the walls with a suitable moisture meter.
- F. Moisture content should not exceed 4%. Excessive moisture in the wall must be corrected prior to the installation of the panels.
- G. Remove any mold and mildew from existing wall and treat surfaces to inhibit future growth.

**3.3 Installation**

- A. General: Comply with manufacturer's written instructions for the installation of Resin Fabrications. Directions for Lumiform™ materials can be found at <http://www.lumicor.com/technical-information>.
- B. Utilize fasteners, adhesives and bonding agents recommended by manufacturer for type of installation indicated. Material that is chipped, warped, hazed or discolored as a result of installation or fabrication methods will be rejected.
- C. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.
- D. Form field joints using manufacturer's recommended procedures. Locate seams in panels so that they are not directly in line with seams in substrates.

**3.4 Cleaning**

- A. Protect surfaces from damage until date of substantial completion. Repair work or replace damaged work, which cannot be repaired to Architect's satisfaction. Refinishing instructions for Lumiform™ products can be found at <http://www.lumicor.com/technical-information>.
- B. Cleaner: Mild soap and water or common acrylic cleaners such as Novus or Gel-Gloss.

Disclaimer: We believe this information to be reliable and offer the information in good faith without guarantee, as conditions and methods of use are beyond our control. We recommend prospective buyers perform their own testing to determine product suitability for all purposes before adopting Lumicor on a commercial scale. In no case is Lumicor liable for direct, consequential, economic or other damages. Lumicor disclaims all other warranties, expressed or implied, including the warranty of merchantability and fitness for a particular purpose.