

**THE FOLLOWING SPECIFICATION IS TO BE USED FOR TOILET PARTITIONS. QUARTZ SURFACE MAY ALSO BE LOCATED IN DIVISION 4 AND DIVISION 9.**

**AT THE END OF THE SECTION IS A SCHEDULE. IT MAY BE USED OR DELETED. COORDINATE CAREFULLY.**

## **SECTION 10172 QUARTZ SURFACE TOILET PARTITIONS**

### **PART 1 — GENERAL**

#### **1.1 RELATED DOCUMENTS**

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

#### **1.2 SUMMARY**

- A. This Section includes the following vertical and trim quartz surface product types:

**DELETE BELOW FOR REQUIREMENTS.**

1. Shower/toilet partitions.
  2. Trim.
- B. Related Sections include the following:
1. Division 1 Section "LEED Requirements" for additional LEED requirements.
  2. Division 4 Section "Quartz Surface Fabrications."
  3. Division 6 Section "Rough Carpentry" for Blocking.
  4. Division 6 Section "Solid Surface Fabrications."
  5. Division 9 Section "Solid Surface Wall Cladding."
  6. Division 9 Section "Quartz Surface Wall Cladding."
  7. Division 15 Section "Plumbing Fixtures."

**KEEP BELOW IF ALTERNATES ARE SPECIFIED IN DIVISION 1. IF THE PROJECT REQUIRES ALTERNATES, INSERT WORK REQUIRED FOR THE ALTERNATES BELOW AND COORDINATE WITH THE DRAWINGS.**

- C. Alternates:
1. Refer to Division 1 Section "Alternates" for description of work in this Section affected by alternates.

#### **1.3 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, attachments, etc.
    - b. Show locations and sizes of cutouts and holes for plumbing fixtures, soap holders, and other items installed in quartz material.

**SAMPLES MAY BE PROVIDED IF COLOR HAS NOT BEEN SPECIFIED.**

**IF COLOR IS SPECIFIED, CONSIDER DELETING THIS PARAGRAPH.**

C. Samples:

1. For each type of product indicated:
  - a. Submit minimum 6-inch by 6-inch sample in specified color.
  - b. Cut sample and seam together for representation of exposed 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. LEED submittals:

**MAINTAIN BELOW IF RECYCLED CONTENT IS REQUIRED FOR LEED CREDIT MR 5.1.**

1. Credits MR 5.1:

- a. Product data indicating that materials are regionally manufactured and within 500 miles of the project site.

F. Product certificates:

1. For each type of product, signed by product manufacturer.

**FEW MANUFACTURERS PROVIDE THIS TYPE OF CERTIFICATION COMPLIANCE. USE OF PARAGRAPH BELOW MAY LIMIT MANUFACTURER COMPETITION.**

G. Fabricator/installer qualifications:

1. Provide copy of certification number.

H. Manufacturer certificates:

1. Signed by manufacturers certifying that they comply with requirements.

I. Maintenance data:

1. Submit manufacturer's care and maintenance data.
  - a. Maintenance kit for finishes shall be submitted.
2. Include in project closeout documents.

## **1.4 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 an authorized fabricator/installer, certified in writing by the manufacturer.

C. Applicable standards:

1. 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 E 84) 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.

## **1.5 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.

## **1.6 WARRANTY**

- A. Provide manufacturer's 10-year warranty against defects in materials.
  1. Warranty shall provide material to repair or replace defective materials.
  2. Damage caused by physical or chemical abuse or damage from excessive heat will not be warranted.

## **1.7 MAINTENANCE**

- A. Provide maintenance requirements as specified by the manufacturer.

# **PART 2 — PRODUCTS**

## **2.1 MANUFACTURERS**

- A. Manufacturers:
  1. Subject to compliance with requirements, provide products by one of the following:
    - a. Zodiaq® Quartz Surfaces from DuPont (basis of design).
    - b. Insert manufacturer's name.
    - c. Insert manufacturer's name.

## **2.2 MATERIALS**

- A. Toilet partitions:
  1. Stiles:
    - a. Floor mounted.
  2. All mounting hardware to be internally mounted in panels and pilasters and to be concealed after assembly of partitions.
- B. Urinal screens:
  1. Panels to be wall mounted.
  2. All mounting hardware to be concealed after installation of panel.

**3 CM IS STANDARD THICKNESS FOR THIS APPLICATION.**

**SEE MANUFACTURER'S PRODUCT DATA OF PANEL SIZE LIMITATIONS FOR SPECIFIED THICKNESS.**

- C. Thickness:
  1. 3 cm (1 1/8").

**IF NOT DETAILED ON THE PROJECT, SELECT  
EDGE TREATMENT HERE.**

**DELETE BELOW IF NOT REQUIRED FOR PROJECT.**

D. Edge treatment:

- 1.
- 2.
- 3.
4. As indicated.

E. Performance characteristics: Zodiaq® physical properties data sheet:

| <b>Property<br/>Procedure</b>                      | <b>Typical Result</b>  | <b>Test</b>   |
|--|--|---|
| Flexural Strength                                  | >5,300 psi   | ASTM D 790  |
| Flexural Modulus                                   | 5.3–5.7E <sup>6</sup> psi  | ASTM D 790  |
| Flexural Elongation                                | >0.1%  | ASTM D 790  |
| Compression Strength (Dry)                         | ~27,000 psi  | ASTM C 170  |
| Compression Strength (Wet)                         | ~24,000 psi  | ASTM C 170  |
| Hardness   | 7  | Mohs' Hardness Scale  |
| Thermal Expansion                                  | 1.45 x 10 <sup>-5</sup> in./in./°C                               | ASTM D 696  |
| Gloss (60° Gardner)                                | 45–50  | ANSI Z 124  |
| Colorfastness                                      | Passes   | ANSI Z 124.6.5.1  |
| Wear and Cleanability                              | Passes   | ANSI Z 124.6.5.3  |
| Stain Resistance                                   | Passes   | ANSI Z 124.6<br>(stain 5.2,<br>chemical 5.5,<br>cigarette 5.4<br>resistances) |
| Fungal and Bacterial Resistance                    | No growth  | ASTM G 21 & G 22  |
| High Temperature<br>Resistance (356 °F)            | None to slight effect  | NEMA LD 3.3.6*  |
| Boiling Water Resistance                           | None to slight effect  | NEMA LD 3.3.5*  |
| Freeze-Thaw Cycling                                | Unaffected   | ASTM C 1026   |
| Point Impact                                       | Passes   | ANSI Z 124.6.4.2  |
| Ball Impact  | 164 inches   | NEMA LD 3.3.8*  |
| Slip Resistance                                    | Above 0.80 for textured models                                   | ASTM C 1028   |
| Static Coefficient of Friction<br>(as received)    | 0.89/0.61 (wet/dry)  | ASTM C 1028   |
| Static Coefficient of Friction<br>(with renovator) | 0.87/0.65 (wet/dry)  | ASTM C 1028   |
| Abrasion Resistance                                | 139  | ASTM C 501  |
| Specific Gravity                                   | 2.44   | ASTM D 792  |
| Density  | ~2400 kg/m <sup>3</sup>  |   |
| Water Absorption                                   | 0.12%  | ASTM C 373  |
| Long- and Short-Term                               | <0.04%   | ASTM D 570  |
| Moisture Expansion                                 | <0.01% on average  | ASTM C 370  |
| Toxicity   | Passes, LC50=68–128  | Pittsburgh Protocol   |
| Flammability                                       | For all colors tested  | ASTM E 84,<br>UL 723<br>and NFPA 255  |
| Flame Spread Index                                 | (Class I and Class A)<br>FSI <10 for 3 cm and <15 for 2 cm       |   |
| Smoke Developed Index                              | SDI <50 for 3 cm and <100 for 2 cm                               |   |
| Nominal Thickness                                  | 2 cm and 3 cm  |   |
| Nominal Weight                                     | 10 lb./ft. <sup>2</sup> (2 cm)<br>15 lb./ft. <sup>2</sup> (3 cm) |   |

\* NEMA results based on the NEMA LD 3-2000

## 2.3 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 adhesives.
  - 3. Provide factory cutouts for bath accessories as required or 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.

**MOST MANUFACTURERS HAVE MULTIPLE TIERS FOR PRICING QUARTZ SURFACES. SPECIFYING PRODUCT TO BE SELECTED FROM THE MANUFACTURER'S FULL RANGE OF COLORS IS UNACCEPTABLE AND WILL RESULT IN HIGHER COST AND CONTRACTUAL CONFLICTS.**

## 2.4 FINISHES

- A. Select from the manufacturer's standard color chart.
  - 1. Color:
    - a.
    - b.
    - c.
    - d.
- B. Finish both sides as needed.

**DELETE OR ADD TO THE PARAGRAPHS BELOW AS PER PROJECT REQUIREMENTS.**

## 2.5 HARDWARE

- A. Hinges — stainless:
  - 1. Manufacturer's standard self-closing type that can be adjusted to hold doors open at any angle up to 90 degrees.
- B. Latch and keeper:
  - 1. Manufacturer's standard surface-mounted latch unit designed for emergency access and with combination rubber-faced door strike and keeper.
    - a. Provide units that comply with accessibility requirements of authorities having jurisdiction at compartments indicated to be accessible to people with disabilities.
- C. Coat hook:
  - 1. Manufacturer's standard combination hook and rubber-tipped bumper, sized to prevent door from hitting compartment-mounted accessories.
- D. Door bumper:
  - 1. Manufacturer's standard rubber-tipped bumper at out-swinging doors and entrance screen doors.
- E. Door pull:
  - 1. Manufacturer's standard unit at out-swinging doors that complies with accessibility requirements of authorities having jurisdiction.

- 2. Provide units on both sides of doors at compartments indicated to be accessible to people with disabilities.
- F. All hardware is supplied by fabricator and it's integrally mounted into the partitions at the time of manufacture.
- G. Hardware:
  - 1. Stainless steel type 304.
  - 2. Mild steel:
    - a. Not acceptable.

## **PART 3 — EXECUTION**

### **3.1 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.

### **3.2 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 centered, in equal sized pieces in finished work.
  - 3. Cut and finish component edges with clean, sharp returns.
  - 4. Route radii and contours to template.
  - 5. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

### **3.3 REPAIR**

- A. Replace damaged work that cannot be repaired to architect's satisfaction.

### **3.4 CLEANING AND PROTECTION**

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

**DELETE SCHEDULE BELOW IF NOT REQUIRED FOR PROJECT OR IF SCHEDULE ON DRAWINGS IS COMPLETE.**

**COORDINATE WITH THE INFORMATION IN PART 2.**

### **3.5 SCHEDULE**

- A. Toilet partitions:
  - 1. Surfaces of material adhesively joined with inconspicuous seams.
 

|                             |       |
|-----------------------------|-------|
|                             | Color |
| a. Vertical Thickness _____ | _____ |
| b. Edge Details _____       | _____ |
- B. Trim:
  - 1. Surfaces of material adhesively joined with inconspicuous seams.
 

|                             |       |
|-----------------------------|-------|
|                             | Color |
| a. Vertical Thickness _____ | _____ |
| b. Edge Details _____       | _____ |