

THE FOLLOWING SPECIFICATION IS TO BE USED FOR INTERFACING WITH VERTICALLY APPLIED QUARTZ SURFACE AND TRIM COMPONENTS. QUARTZ SURFACES MATERIALS MAY ALSO BE LOCATED IN DIVISION 4 AND DIVISION 10.

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

SECTION 09752 QUARTZ SURFACE WALL CLADDING

PART 1 — GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including general and supplementary 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. Tub and shower walls.
2. Wall cladding/wainscoting.
3. Trim.

DELETE BELOW FOR REQUIREMENTS.

- 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 "Solid Surface Fabrications."
4. Division 9 Section "Solid Surface Wall Cladding."
5. Division 10 Section "Solid Surface Toilet Partitions."
6. Division 10 Section "Quartz Surface Toilet Partitions."
7. Division 15 Section "Plumbing Fixtures."
8. Division 16 Section "Wiring Devices."

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, faucets, soap dispensers, waste receptacle and other items installed in quartz surface.

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.

DUPONT MAINTAINS A DATABASE OF REGISTRATION NUMBERS FOR AUTHORIZED FABRICATORS/INSTALLERS.

- G. Fabricator/installer qualifications:
 - 1. Provide copy of registration 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 a certified 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.

**DELETE BELOW IF COMPLEXITY OF PROJECT
DOES NOT REQUIRE COORDINATION DRAWINGS.**

- D. Coordination drawings:
 - 1. Shall be prepared indicating:
 - a. Electrical work
 - b. Miscellaneous steel for the general work.
 - c. Indicate location of all walls (rated and non-rated), blocking locations and recessed wall items, etc.
 - 2. Content:
 - a. Project-specific information, drawn accurately to scale.
 - b. Do not base coordination drawings on reproductions of the contract documents or standard printed data.
 - c. Indicate dimensions shown on the contract drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements.
 - d. Provide alternate sketches to designer for resolution of such conflicts.
 - 1) Minor dimension changes and difficult installations will not be considered changes to the contract.
 - 3. Drawings shall:
 - a. Be produced in 1/2-inch scale for all fabricated items.
 - 4. Drawings must be complete and submitted to the architect within 60 days after award of contract for record only.
 - a. No review or approval will be forthcoming.
 - b. Coordination drawings are required for the benefit of contractor's fabricators/installers as an aid to coordination of their work so as to eliminate or reduce conflicts that may arise during the installation of their work.
- E. Job mock-up:
 - 1. Prior to fabrication of architectural millwork, erect sample unit to further verify selections made under sample submittals and to demonstrate the quality of materials and execution.

IT IS RECOMMENDED THAT THE DESIGNER INDICATE THOSE LOCATIONS REQUIRED FOR MOCK-UPS. MOCK-UP SHOULD INCLUDE EDGING, SEAMS, ETC. WHEN POSSIBLE, THESE BE INCORPORATED INTO THE FINAL PROJECT TO SAVE COST.

2. Mock-up shall be _____.
3. Build the mock-up to comply with the contract documents and install in a location as directed by the architect.
4. Notify the architect two weeks in advance of the date of when the mock-up will be delivered.
5. Should mock-up not be approved, re-fabricate and reinstall until approval is secured.
 - a. Remove rejected units from project site.
6. After approval, the mock-up may become a part of the project.
7. This mock-up, once approved, shall serve as a standard for judging quality of all completed units of work.

KEEP PARAGRAPH BELOW IF SIZE OR COMPLEXITY OF PROJECT REQUIRES PRE-INSTALLATION MEETING.

F. Pre-installation conference:

1. Conduct conference at project site to comply with requirements in Division 1.

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. Zodiac® Quartz Surfaces from DuPont (basis of design).
 - b. Insert manufacturer's name.
 - c. Insert manufacturer's name.

2.2 MATERIALS

- A. Material:
 1. Homogeneous quartz surfaces material.

2. Material shall have minimum physical and performance properties specified.

3 cm (1 1/8") PRODUCT IS TYPICAL FOR HORIZONTAL INSTALLATION AND 2 cm (3/4") PRODUCT FOR VERTICAL INSTALLATION.

SEE MANUFACTURER'S PRODUCT DATA OF PANEL SIZE LIMITATIONS.

THE THICKER THE MATERIAL, THE MORE THE COST IN BOTH PRODUCT AND LABOR.

B. Thickness:

1. 2 cm (3/4").
2. 3 cm (1 1/8").

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

DELETE BELOW IF NOT REQUIRED FOR PROJECT.

C. Edge treatment:

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

D. Seam width:

1. <1/8" unless otherwise specified.

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

Property Procedure	Typical Result	Test
Flexural Strength	>5,300 psi	ASTM D 790
Flexural Modulus	5.3–5.7E ⁶ 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 ⁻⁵ 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 (stain 5.2, chemical 5.5, cigarette 5.4 resistances)
Fungal and Bacterial Resistance	No growth	ASTM G 21 & G 22
High Temperature 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 (as received)	0.89/0.61 (wet/dry)	ASTM C 1028
Static Coefficient of Friction (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 ³	
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, UL 723 and NFPA 255
	(Class I and Class A)	
Flame Spread Index	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. ² (2 cm)	
	15 lb./ft. ² (3 cm)	

* NEMA results based on the NEMA LD 3-2000

2.3 ACCESSORIES

- A. Joint adhesive:
 1. DuPont-approved adhesive to create color-matched seam.
- B. Panel adhesive:
 1. Manufacturer's standard panel adhesive.

2.4 FACTORY FABRICATION

**WEIGHT OF PRODUCT IS APPROXIMATELY
10–15 PSF AND IS TYPICALLY FIELD ASSEMBLED.**

- 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, if required, between components using manufacturer's standard joint adhesives.
 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.

DELETE BELOW IF NOT REQUIRED FOR PROJECT.

- B. Tub and shower walls:
 1. 3/4"-thick standard panels of quartz material, in height required, with batten strips, vertical edge and ceiling trim strips, adhesively applied to approved substrate using thin-set, neoprene-based panel adhesive or Type 1 ANSI A 136.1 solvent-based adhesive with matching color.

**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.

2.5 FINISHES

- A. Select from the manufacturer's standard color chart.
 - 1. Color:
 - a.
 - b.
 - c.
 - d.
 - e.

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 inconspicuous in finished work.
 - a. Exposed joints/seams shall not be allowed.
 - 3. Reinforce field joints as required using manufacturer's written instructions.
 - 4. Cut and finish component edges with clean, sharp returns.
 - 5. Route radii and contours to template.
 - 6. Carefully dress joints smooth, remove surface scratches and clean entire surface.

3.3 REPAIR

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

3.4 CLEANING AND PROTECTION

- 1. Keep components clean during installation.
- 2. 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. Vertical surfaces:
 - 1. Surfaces of material adhesively joined with inconspicuous seams.
 - a. Vertical Thickness _____ Color _____
 - b. Edge Details _____
- B. Tub and shower walls surfaces:
 - 1. Surfaces of material adhesively joined with inconspicuous seams.

Color

a. Vertical Thickness _____

b. Edge Details _____

C. Trim:

1. Surfaces of material adhesively joined with inconspicuous seams.

Color

a. Vertical Thickness _____

b. Edge Details _____