

SECTION 09 29 13

GLASS-FIBER-REINFORCED GYPSUM FABRICATIONS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This Section describes the requirements for furnishing and installing interior glass-reinforced gypsum fabrications at elevator lobbies Floors 3 to 8, 8th Floor Court Rooms and 8th Floor Corridors and as indicated.
- B. Related Sections:
 - 1. Joint sealants are specified in Section 07 92 00.
 - 2. Gypsum board is specified in Section 09 29 00.
 - 3. Painting is specified in Section 09 91 00.

1.02 SUBMITTALS

- A. Shop Drawings: Indicate layouts, sizes, details, and materials. Show reinforcements, anchorage, and attachment for installation. Include joint locations, sizes, and design. Include location and spacing of anchor bolts, sleeves, and other features to be built into the structure. Furnish drawings to other Sections as required to prepare openings, and supports.
- B. Samples: One sample of each required shape and molding, of dimensions as directed by the County's Representative. Samples shall be of color and texture proposed for use on this Project.
- C. LEED Submittals:
 - 1. Credit IEQ 4.1: Product data for adhesives and sealants used inside the weatherproofing system indicating VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D.
 - a. Furnish LEED Online Credit Template listing the adhesives and sealants used in the building and declaring that they meet the specified LEED requirements.
 - b. Required Audit Documentation:
 - 1) Product data sheets and MSDS for each adhesive/sealant used on the interior, with the VOC content in g/L circled and indicating VOC content of each product used.
 - 2) Summary table comparing credit VOC requirements and actual VOC levels for each product.

1.03 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Capability of producing products of the quantity and quality required for this Project, with a minimum of 5-years continuous experience.

1.04 ENVIRONMENTAL QUALITY ASSURANCE

- A. Credit IEQ 4.1: Adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the requirements of the following reference standards:

1. Adhesives, Sealants and Sealant Primers: Comply with South Coast Air Quality Management District (SCAQMD) Rule #1168. VOC limits as follows:

Architectural Applications	VOC Limit g/L less water	Specialty Applications	VOC Limit g/L less water
Indoor Carpet Adhesives	50	PVC welding	510
Carpet pad adhesives	50	CPVC welding	490
Wood flooring adhesives	100	ABS welding	325
Rubber floor adhesives	60	Plastic cement welding	250
Subfloor adhesives	50	Adhesive primer for plastic	550
Ceramic tile adhesives	65	Contact adhesive	80
VCT and asphalt adhesives	50	Special purpose contact adhesive	250
Drywall and panel adhesives	50	Structural wood member adhesive	140
Cove base adhesives	50	Sheet applied rubber lining operations	850
Multipurpose construction adhesives	70	Top and trim adhesive	250
Structural glazing adhesives	100		
Substrate Specific Applications	VOC Limit g/L less water	Sealants	VOC Limit g/L less water
Metal to Metal	30	Architectural	250
Plastic foams	50	Nonmembrane roof	300
Porous material (except wood)	50	Roadway	250
Wood	30	Single-ply roof membrane	450
Fiberglass	80	Other	420
Sealant Primers	VOC Limit (g/L less water)		
Architectural, nonporous	250		
Architectural, porous	775		
Other	750		

2. Aerosol Adhesives: Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000.

Aerosol Adhesives	VOC Limit
General purpose mist spray	65% VOCs by weight
General purpose web spray	55% VOCs by weight
Special purpose aerosol adhesives (all types)	70% VOCs by weight

- B. Applicable LEED Credits:

1. Credit IEQ 4.1 – Low-Emitting Materials - Adhesives and Sealants.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Provide factory wrapping, packaging, and other means necessary to prevent damage or deterioration during shipment, handling, and storage.
- B. Maintain protective coverings in place and in good repair until removal is necessary.
- C. Store products inside enclosed storage facilities or closed building, supported above grade and slabs-on-grade.
- D. Maintain storage spaces and products in dry condition within temperature extremes recommended by manufacturer. Follow special instructions by manufacturer.

1.06 COORDINATION

- A. Coordinate work with others as required for placing and anchorage of gypsum fabrications.
- B. Where units are required to fit spaces previously constructed, take measurements at the Project site prior to beginning fabrication.

PART 2 - PRODUCTS

2.01 APPROVED MANUFACTURERS

- A. Formglas, Inc., DEC Associates, Architectural Shapes, Inc., Moonlight Molds or approved equal.

2.02 MATERIALS

- A. Glass-reinforced gypsum fabrications shall be molded to match profiles of existing surfaces.
- B. Finished product shall conform to the following:
 - 1. Shell Thickness: 1/4-inch minimum except for small components which may be 1/8-inch minimum, large components shall be of thickness recommended by the manufacturer for the size and location of components.
 - 2. Weight: 1.5-pounds per sq. ft.
 - 3. Flexural Strength: 4,192-psi.
 - 4. Tensile Strength: 1,340-psi.
 - 5. Compressive Strength: 5,800-psi.
 - 6. Density: 110-pcf.
 - 7. Hardness (Barcol): 105.
 - 8. Flammability:
 - a. Flame Spread: 0.
 - b. Smoke Developed: 0.
 - c. ASTM E84: Class I.
 - 9. Glass Content: 38.7-percent.
- C. Provide supports, fasteners, and other accessories required for secure installations.
- D. Adhesives: As recommended by manufacturer.

2.03 FABRICATION

- A. Fabrications shall be constructed of fiberglass reinforced gypsum to product units conforming to the required profiles, dimensions, and tolerances.
- B. Allowable Tolerances:
 - 1. Dimensional Tolerances: +/- 1/8-inch.
 - 2. Wall Thickness: Nominal 3/16-inch.
 - 3. Out of Plumb: +/- 1/8-inch.
 - 4. Bowing: L/360 maximum.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install units in accordance with manufacturer's instructions and approved shop drawings using experienced installers.
- B. Install units straight, plumb, level, in true alignment and securely anchored. No exposed fastenings are permitted.

- C. Tape, float and sand joints using materials specified in Section 09 29 00.

3.02 COMPLETION

- A. Exposed surfaces shall be clean and free from chips, cracks, scratches, dents, tool marks, stains, discoloration, or other defects or damage.
- B. Glass-reinforced gypsum fabrications will be rejected by the County's Representative for, but not limited to, the following reasons:
 - 1. Cracked, chipped, split, or stained units.
 - 2. Units not securely attached to the structure and to each other.
 - 3. Non-conformance to specified detail requirements.
 - 4. Non-conformance to approved samples.
 - 5. Units exceeding specified allowable tolerances.
 - 6. Damage beyond satisfactory Project site repair as determined by the County's Representative.
- C. Replace rejected units at no additional cost to the County.

END OF SECTION