

SECTION 06 20 23

INTERIOR FINISH CARPENTRY (Faux Concrete Gypsum Castings)

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes furnishing all materials, labor, equipment, and related services necessary to supply and install decorative Faux concrete fabrications, parts and/or panels for interior use as indicated in the contract documents, and in compliance with applicable codes.

1.2 RELATED SECTIONS

- A. Section 06 20 00 Millwork
- B. Section 06 61 00 Simulated Stone Fabrications
- C. Section 09 27 13 Glass Fiber Reinforced Plaster Fabrications
- D. Section 06 10 00 Rough Carpentry – for connection attachment to structural steel framing.
- E. Section 09 22 00 Supports for Plaster and Gypsum Board – for connection attachment to structural steel framing.

1.3 REFERENCES

- A. ASTM International (ASTM)
 - 1. E84 Standard Test Method for Surface Burning Characteristics of Building materials.
 - 2. C754 Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
 - 3. C1007 Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories.

1.4 ACTION SUBMITTALS

- A. Product Data: Submit product data sheets for each specified product.
- B. Past Projects: Submit a minimum of 3 previously completed installations of similar materials and complexity. Include contact name, e-mail address and phone number for each project.

- C. Shop Drawings: Submit drawings for approval showing plans, sections, details, joint treatment, reinforcing, fastening devices and the relation of the faux concrete parts to the surrounding construction.
- D. Samples: Submit a minimum of 3 flat samples of faux concrete material for each color and texture selected.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - a. Manufacturer shall have a minimum of 10 years' experience having successfully supplied faux concrete parts or panels for other projects similar in scope and complexity for the work of this Contract.
 - b. Manufacturer shall have a minimum of 10 years' experience using 3D modelling software and CNC machines for the creation of master patterns used to make molds for fabricated faux concrete components.
- B. Installer Qualifications: Installer shall have a minimum of 5 years' experience having successfully completed projects similar in scope and complexity for the work of this Contract.
- C. Substrates to accept faux concrete parts shall be installed straight and true within 1/8 in. in 8 linear ft. (3mm in 2500mm) and shall be free of obstructions and interference that prohibits the correct alignment and attachment of the faux concrete parts.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Faux concrete parts shall be kept clean and dry and stored to prevent distortion, warping, and other physical damage in accordance with the manufacturer's recommendations.
- B. The faux concrete parts shall not be stacked or placed on other parts. Do not "lean" as this may result in warpage. Parts must be protected from jobsite damage prior to, during, and after installation.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install faux concrete parts until building is enclosed and weatherproof, wet work is complete, and the HVAC system maintains temperature and humidity at normal occupancy levels.
- B. Acclimatize the faux concrete parts for a minimum of 48 hours to the ambient temperature and humidity levels of spaces in which they are to be installed.

1.8 WARRANTY

- A. Manufacturer Warranty: Provide manufacturer's standard product warranty.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Formglas Products Ltd. – Tel: +1.416.635.8030 | +1.866.635.8030
Contact your local Formglas representative – www.formglas.com/contact
or send requests for quotations directly to estimating@formglas.com

2.2 Concreat™ Faux Concrete Gypsum Castings

- A. Fabrications: Faux concrete parts are to be made in accordance with the approved shopped drawings and samples.
- B. Color and Texture: Faux concrete parts to be supplied in the color and texture as per approved samples.
- C. Embedments: Faux concrete parts to have typical embedments and reinforcement of galvanized steel or wood, if required, for the purposes of suspension, attachment and stiffness.
- D. Faux concrete “Veneer” panels are available: Pre-made outside 90° “Veneer” corners can be supplied.
- E. Sealer: Molded faux concrete parts to have a factory applied clear (non-gloss) sealer.
- F. Joint Treatment: As detailed in the approved drawings. Follow manufacturer’s instructions.
- G. Adhesive: Installer to use a manufacturer recommended adhesive to ensure proper adhesion and to prevent bleed through.

2.3 PHYSICAL PROPERTIES

- A. Matrix: Alpha Gypsum Cement and various aggregates
 - Veneer thickness: 5/16” (8 mm) nominal
 - Shell thickness: 5/16” (8 mm) nominal
 - Edge thickness: 3/4”-1¼” (19-32 mm) typical
 - Veneer panel weight: 2-2½ lb/ft² (10-12 kg/m²)
 - Molded parts weight: 2½-5 lb/ft² (12-24 kg/m²)
 - Density: ~100 lb/ft³ (1600 kg/m³)
 - Glass Fiber: 5% typical
 - Embedments: Galvanized steel or wood, if required
 - Impact Resistance (ASTM D256): 4·2 ft.lbf/in (224 J/m)
 - Surface Burning Characteristics (ASTM E84):
 - Flame Spread: 0
 - Smoke Development: 5
 - Behavior at 750°C (ASTM E136): Pass

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Site Conditions: Verify the conditions for compliance with the requirements including environmental conditions, installation tolerances and other conditions affecting the installation and performance of faux concrete parts. Any unsatisfactory conditions to be corrected prior to installation.
- B. Field Dimensions: Field dimensions are to be verified including those not shown on the drawings. Any discrepancies are to be brought to the attention of the Architect with resolutions to the discrepancies to be mutually agreed upon by all parties involved. Details of any changes required must be incorporated into the manufacturer’s shop drawings prior to commencing the manufacture of the faux concrete parts.

3.2 PREPARATION

- A. Substrate: Substrates to accept Faux concrete parts, provided by others, shall be installed straight and true within 1/8 in. in 8 ft. (3mm in 2500mm) and shall be free of obstructions and interference that prohibits correct attachment of Faux concrete parts.
- B. Metal framing members, provided by others, shall be of the proper size and design for the intended use and shall be sufficient to properly support the installed faux concrete parts. Metal framing members shall be installed in accordance with ASTM Standards C754 or C1007 as required.

3.3 INSTALLATION

- A. It is the Installer's responsibility to verify scope and to order the correct quantities of parts (including a waste allowance).
- B. Supply and install all shims and brackets required for work in this section and to ensure a solid and secure installation of faux concrete parts.
- C. Position the Faux concrete parts carefully into place and align with adjacent parts and materials in accordance to the drawings. Attach faux concrete parts to substrates and framing with fastening devices and adhesives as specified by the manufacturer. Use concealed shims as required.
- D. As with most natural stone, faux concrete parts will have texture and color shading variations. DO NOT try to match shadings in specific areas. Mix varying parts at random.
- E. Where Faux concrete parts are suspended, use the suspension points indicated on the shop drawings as a minimum requirement and use additional support(s) as required.
- F. Complete joint treatment, hole filling, patching and cleaning in accordance to the manufacturer's recommendations. Plan in advance to secure Architect approval of any use of color matching caulk (to be supplied by installer).

END OF SECTION