

SECTION 04720 – INTERIOR THIN CAST STONE FABRICATIONS

** NOTE TO SPECIFIER **

Balmer Architectural Mouldings for Standard and Custom fabrications.

This section is based on the Thin Cast Stone fabrications of:

Balmer Architectural Mouldings
25 Howden Rd, Unit 5
Toronto, Ontario, Canada
M1R 3S5
Tel.: 416-491-6425
Fax: 416-491-7023
Website: www.balmer.com

Balmer Architectural Mouldings fabrications include custom cornices, friezes, ceiling centers, door casings, wall and ceiling panel ornaments, ceiling tiles, columns, pilasters, pediments, brackets, capitals, barrel vaulting and domes, panels, mantels, wall niches and custom shapes.

Standard items are available in a wide variety of designs and sizes. In addition to Thin Cast Stone, designs are also available in glass fiber reinforced gypsum, and high-density rigid polyurethane foam.

To specify standard designs, obtain catalog information from the website at www.balmer.com.
Verify lead times on custom items.

SECTION 04720 – INTERIOR THIN CAST STONE FABRICATIONS

PART 1 GENERAL

1.1 SECTION INCLUDES

** NOTE TO SPECIFIER ** If necessary, make a list of the items required.

- A. Thin Cast Stone fabrications as indicated on the project drawings.
- B. Provide all labor materials, equipment and related services for the complete installation of Thin Cast Stone fabrications in accordance with contract documents and requirements of authorities having jurisdiction.

1.2 RELATED SECTIONS

** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.

- A. Section 03490 - Glass Fiber Reinforced Concrete.
- B. Section 05500 - Metal Fabrications: Supplementary supports for large items.
- C. Section 06100 - Rough Carpentry: Supplementary supports for large items.
- D. Section 06400 – Architectural Woodwork
- E. Section 06610 - Glass Fiber Reinforced Plastic Fabrications.
- F. Section 09235 – Glass Fiber Reinforced Gypsum Fabrications
- G. Section 09900 - Paints and Coatings: Field painting and sealing prior to painting.

1.3 REFERENCES

** NOTE TO SPECIFIER ** Delete references from the list below
that are not required by the text of the edited section.

- A. ASTM C472 - Standard Test Method for Physical Testing of Gypsum; 1999.
- B. ASTM C 840 - Standard Specification for Application and Finishing of Gypsum Board; 1999.
- C. ASTM D 256 - Standard Test Methods for Determining Izod Pendulum Impact Resistance; 1997.
- D. ASTM D 638 - Standard Test Method for Tensile Strength; 1999.
- E. ASTM D 2583 - Standard Test Method for Rockwell Hardness; 1998.
- F. ASTM C 947 - Standard Test Method for Flexural Strength; 1999.
- G. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 1999.
- A. ASTM E 136 – Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C; 1999 (Combustibility Test).

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- A. Shop Drawings: For custom items, provide for approval drawings in AutoCAD format showing dimensions, layout, sections, and ornate details where applicable; include field measured dimensions of the spaces where items are to be installed, if critical to proper installation.
- C. Samples: For each custom “millwork” item specified, provide (1) - 12” long sample presenting actual product and pattern.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Transport, lift, and handle units with care, avoiding excessive stress, impact, and preventing damage; use appropriate equipment and handling methods.
- B. Store products level in manufacturer's unopened packaging until ready for installation, in a clean dry area protected from weather, moisture, low temperatures, and damage.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer:

Balmer Architectural Mouldings
25 Howden Rd, Unit 5
Toronto, Ontario, Canada
M1R 3S5
Tel.: 416-491-6425
Fax: 416-491-7023
Website: www.balmer.com

- B. Substitutions: Not permitted.

2.2 MATERIALS

- A. Thin Cast Stone Fabrications: Proprietary high density gypsum and limestone composition reinforced with glass fibers, and/or metal reinforcing as required.
- B. Adhesive:
“Power Grab” latex adhesive as manufactured by Loctite/Henkel or “Bulldog PL Premium” polyurethane adhesive as manufactured by LePage/Henkel may be used.

2.3 PHYSICAL MATERIAL PROPERTIES

1. Density: 90 to 110 lb/cu.ft.
2. Flame Spread Index: 0, when tested in accordance with ASTM E84-90.
3. Non-combustible material, when tested in accordance with ASTM E136-99.
4. Compressive strength: 2,000 to 5,000 psi
- A. Impact strength: 8.0 to 9.0 ft-lb/sq-in.

2.4 TOLERANCES

1. Variation from dimensions indicated on drawings:
+/- 1/8".
2. Variation from plane along edge or surface:
+/- 1/16" per linear foot.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly constructed; verify that substrates are plumb and true. If substrate preparation is the responsibility of another installer, notify architect and general contractor of unsatisfactory preparation before proceeding.
- B. Check field dimensions before beginning installation. If dimensions vary out of tolerance range for proper installation, notify architect and general contractor. Work shall not proceed until all discrepancies are corrected.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces as required to achieve the best result for the substrate under the project conditions.
- C. Install supplementary temporary and permanent support and/or bracing as required for proper installation.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's recommendations, plumb and true to line; shim where necessary.
- B. Coordinate work with related site work.
- C. Butter all bedding margins and butt joint ends with adhesive, such as "Power Grab" as manufactured by Loctite/Henkel, or "Bulldog PL Premium" as manufactured by LePage/Henkel. Follow adhesive manufacturer's instructions. Use shims to align joints if required.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before substantial completion.

3.5 FINISHING

- A. Comply with Section 09900 of specifications.

**** NOTE TO SPECIFIER ****

- a. Balmer Thin Cast Stone fabrications are finished products and should be treated as a gypsum product for surface finishes.
 - b. Thin Cast Stone fabrications are intended for interior "dry" applications.
 - c. Balmer Thin Cast Stone fabrications are produced with a texture and color that replicates the appearance of stone. Due to natural characteristics of the material and manufacturing process, variations in color shade and surface texture are normal.
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3.6 WARRANTY

- A. One (1) year manufacturer's warranty for all materials supplied, effective from date of receipt of material. Product will conform to samples and drawings approved by architect and/or general contractor. Any defects in workmanship will be correct or replaced at the discretion of the manufacturer at no cost. Defects developed as a result of other trades or site conditions are specifically excluded.

- B. Limitations: The noted general warranty is exclusive. All other warranties whether expressed or implied or arising by application of law, usage of trade, in the course of dealings or otherwise, are excluded. The only warranty is that expressed above. The manufacturer shall not be liable for any penalty or for any loss or damages associated with the removal or installation of its products or claims of third parties against the purchaser.

END OF SECTION 04720