

SECTION 068320 – GFRP COMPOSITE MOLDED ARCHITECTURAL SHAPES

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. Section Includes:

- 1. Beam Covers.
 - 2. Column Covers.
 - 3. Bulkhead Liners.
 - 4. Chases.
 - 5. Canopy Hoods.

- B. Related Sections:

- 1. Section 068315 - Acryloyl Engineered Polymer Wall and Ceiling Panels.
 - 2. Section 068318 - GFRP Composite Wall and Ceiling Panels.
 - 3. Section 083110 - Acrylic Access Doors and Panels.
 - 4. Section 095800 - Closed Edge GFRP Insulated Lay-In Ceiling Panels.
 - 5. Section 095810 - Acryloyl Engineered Polymer Ceiling Panels.
 - 6. Section 095820 – Fiberglass Suspended Ceiling Inverted Tee Rail System.
 - 7. Section 115301 - Laboratory Equipment Wall Panels and Canopy Hood.

1.3 REFERENCES

- A. ASTM D 1621 - Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
- B. ASTM D 2583 - Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impresser.
- C. ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials.
- D. ASTM D 3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
- E. ASTM D 3274 - Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Fungal or Algal Growth, or Soil and Dirt Accumulation
- F. ISO 846 – Plastic - Evaluation of the action of Microorganism Resistance to Fungi and Bacteria Test Method.

1.4 SUBMITTALS

- A. Comply with section 013300 submittal procedures.
- B. Product Data: Submit manufacturer's product data including installation instructions.
- C. Shop drawings: Submit manufacturer's shop drawings of Molded Architectural Shapes.
- D. Samples: Submit manufacturer's samples of Molded Architectural Shapes.
- E. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain gel coat fiberglass reinforced polymer composite molded architectural shapes and accessories from single manufacturer.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Store Molded Architectural Shapes in clean, dry area in accordance with manufacturer's instructions.
- C. Protect materials and finish from damage during handling and installation in accordance with manufacturer's instruction.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not install materials until building is enclosed and areas to receive materials are protected from dirt and dust.
- B. Maintain the following conditions during and after installation in areas to receive materials.
 - 1. Minimum Temperature: 60 degrees F (15 degrees C).
 - 2. Relative Humidity: 20 to 60 percent.

1.8 WARRANTY

- A. Warranty: Submit manufacturer's standard warranty. The manufacturer guarantees the product supplied shall be free of defects in material or workmanship under normal use and service
 - 1. Warranty Period: Five years from the date of delivery.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Basis of Design: Subject to compliance with requirements, provide the following **by ARCOPLAST, 106 Crafton Drive, O'Fallon, Missouri 63366**. Toll Free (888) 736-2726. Phone (636) 978-7781. Fax (636) 978-7782. Web Site www.arcoplast.com.
1. The following components meet critical environment and high containment facility requirements. SUBSTITUTION ARE NOT ALLOWED.

2.2 GFRP MOLDED ARCHITECTURAL SHAPES

- A. Foam core with exposed side of one-piece, uniform, glass-fiber mat embedded in resin matrix and gel coat facing.
1. Foam Core: 1/2-inch-thick, polyisocyanurate closed cell, Class A.
 2. Resin/Glass Matrix: Glass strand fiber mats minimum 25% embedded in fire retardant resinous system.
 3. Color: Standard white or specially formulated per requirements.
 4. Thermal Resistance: R: 6.56 per inch of foam.
 5. Thermal Conductivity: 0.15 BTU in/ft-h-degree F (0.022 W/m-degree C) F Core Shear Strength: 28 pounds per inch (193kPa).
 6. Core compression Strength – ASTM D 1621; 25 pounds per inch (170kPa).
 7. Barcol Hardness – ASTM D 2538: 45.
 8. Water Vapor Transmission – ASTM E 96: Less than 0.01.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install molded architectural shapes in accordance with manufacturer's instruction.
- B. Install molded architectural shapes plumb, level, square, and in proper alignment.
- C. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by architect.
- D. Remove and replace damaged components that cannot be successfully repaired as determined by architect.

3.3 CLEANING

- A. Clean molded architectural shapes properly after installation in accordance with manufacturer's instructions.
- B. Do not use harsh abrasive materials or methods that would damage finish.

3.4 GEL COAT REPAIR

- A. Repair surface damages or scratches with gel coat putty per manufacturer's instructions.

3.5 PROTECTION

- A. Keep covered with polyethylene film and protect Molded Architectural Shapes from damages

END OF SECTION 068320