

**Note to User:** These specifications are provided to aid the Engineer in the design and complete specification of a Fiberglass Shelter. Proper selection and use of any structure requires the services of a Professional Engineer. These documents are not meant to be used in lieu of the services of a design professional. Consult the Virtual Polymer Compounds engineering staff for assistance in special design and/or equipment.

**Product:**

**Project Name:**

**Manufactured By:** Virtual Polymer Compounds, LLC

**SALES ORDER:**                      **DATE:**

**PRODUCT SPECIFICATION  
EDURO MODEL 1630**

**PART ONE: GENERAL INFORMATION**

- 1.01 Furnish ( ) fiberglass composite enclosures that measure 30 inches in length by 16.5 inches in width by 40 inches in height. Flip-top lid access.
- 1.02 Specification section that may relate to this work:
  - A. Section 03300 - Cast In Place Concrete
- 1.03 References and related standards:
  - A. ANSI/AWWA F101 - Contact molded, Fiberglass-Reinforced Plastic Wash Water Troughs
  - B. ASTM D 256 - Standard Test Method for Determining Pendulum Impact Resistance of Notched Specimens of Plastic.
  - C. ASTM D 638 - Standard Test Method for Determining Tensile Properties of Plastic
  - D. ASTM D 790 - Standard Test Method for Determining Flexural Properties of Plastic
  - E. ASTM D 2583 - Standard Test Method for Determining the Surface Hardness of Plastic using a Barcol Instrument.
  - F. ASTM D 648 - Standard Test Method for Determining the Distortion of Plastic under controlled Exposure to Elevated Temperatures
- 1.04 Submittals:
  - A. Comply with General Conditions of Project Documents
  - B. Shop Drawing showing all critical dimensions of Enclosure
  - C. Shop Drawing showing location and plan of all Enclosure options
  - D. Complete off loading, storage and installation instructions
- 1.05 Delivery, Off Loading and Storage
  - A. Off load structure according to manufacture's instructions
  - B. Inspect structure completely and report any damage during shipping

- C. Store structure on level, firm ground or platform and protect from construction traffic and damage.

**PART TWO: PRODUCT**

2.01 Products:

- A. Provide fiberglass enclosure as manufactured by Virtual Polymer Compounds, LLC of 10478 Ridge Road, Medina NY 14103; Tel. (585) 735-9668.
- B. Request for substitution will be considered only if submitted and approved in advance of bid date. Substitution requests must include evidence that the product meets all standards submitted herein, that the manufacturer has ten years of experience fabricating the product, and there is a complete quality assurance program in place, such as ISO 9001.
- C. Substitution not submitted in and approved by bid date will not be considered.

2.02 Material of Construction:

- A. Gel Coat: All exposed surfaces will be smooth with a 20 mil polyester based gel coat. Color of the gel coat is beige.
- B. Structural laminate will be nominal ¼ inch thick. It will be a composite of 30% by weight chopped strand glass fiber mat and high grade polyester resin provided by Ashland Inc.
- C. The material will meet the following standards:
  - 1. Tensile Strength                   ASTM D 638                   14,000 psi
  - 2. Flexural Strength                ASTM D 790                25,000 psi
  - 3. Flexural Modulus                ASTM D 790                1,000,000 psi
  - 4. Impact, Notched                 ASTM D 256                10 ft-lbs/1
  - 5. Barcol Hardness                 ASTM D 2583 40
  - 6. High Temperature Limit        150 F
  - 7. Chemical Resistance            ANSI/AWWA F10 Type II

2.03 Method of Construction: Single piece contact molded fiberglass reinforced plastic.

2.04 Metallic mounting hardware is to be 304 grade stainless steel.

2.05 The Enclosure is to include the following standard options:

- A. Stainless steel hinges for flip top lid.
- B. Flip top lid includes safety lift arm.
- C. Locking door hasp and handle.
- D. Continuous fiberglass interior mounting flange with the same finish as the balance of the unit.

2.06 Optional electrical equipment available on request.

### **PART THREE: EXECUTION**

- 3.01 Carefully remove structure from original crating only at the time of installation. Examine the unit completely and report any damage to the unit prior to installation.
- 3.02 Verify that the dimensions of the concrete slab (foundation) designated for installation are correct and suitable for installation. Report any anticipated problems at once.
- 3.03 Installation:
  - A. Install according to installation instructions provided by the manufacturer.
  - B. Ensure the structure is set plum, true and level.
  - C. Fasten to foundation using specified fasteners at specified spacing.
  - D. Connect to power from protected circuit.

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