

Feel free to use this specification sheet as a guide for your next custom building.

GUIDE SPECIFICATIONS

FOR DFI'S FIBERGLASS COMPOSITE ENCLOSURES

1.0 GENERAL

1.1 A complete fiberglass enclosure assembly shall be furnished and factory fabricated to nominal dimensions corresponding to those shown on the plans.

1.2 Each enclosure shall be made of integral sections including roof section(s) and wall sections, with door(s) and hardware completely installed ready for placement on the selected site. [Alternative phrasing for cartoned buildings: each enclosure shall be made with ___ integral sections, including ___ wall sections with door(s) and hardware completely installed and ___ roof section(s) ready for placement on the wall sections. The enclosures shall be crated to protect the shipment to the job site.]

1.3 Each enclosure's mechanism and accessory items shall be factory installed to the extent that shipping allows.

1.4 [Note: include only in event of cartoned building] Wall assembly should require only the positioning of the walls plumb and true, and the application of a minimum number of stainless-steel fasteners in pre-drilled holes, followed by a latex or silicon-based caulking at the interior and exterior joints, all in a workman-like manner. The roof placement shall require squaring the wall assembly and fastening the roof to the walls with stainless-steel fasteners through the anchor holes.

1.5 [Note: 1.4 for an assembled building.] The enclosures are anchored to the ground/floor/pad with wedge anchors (supplied by others) and sealed with latex or silicon caulking.

1.6 The roof section, if left uncaulked, shall be readily removable for access to, or replacement of, major equipment protected within the enclosure.

2.0 QUALITY ASSURANCE

2.1 The finished enclosure shall be furnished by Dyer Fiberglass, Inc., Dyer, TN, or a qualified, reputable manufacturer experienced in the design and manufacturing of fiberglass enclosures.

2.2 The enclosure provided shall have been completely assembled at the factory, prior to shipment. [Note: if building is to be shipped cartoned, add "to assure proper alignment of all joints, and alignment of fasteners."]

2.3 The enclosure shall be warranted against defects in material and workmanship for a period of one year.

3.0 CONSTRUCTION DETAILS

3.1 The walls and roof sections shall be of composite construction, comprised of an inner structural framing and reinforcement materials, polyurethane foam insulation, and an outer encapsulating fiberglass laminate. Structural members shall be properly seasoned and selected for uniformity and straightness and void of holes and irregularities.

3.2 Each wall or roof section shall be completely encapsulated within a 1/8" minimum thickness fiberglass laminate, made up of chemical resistant polyester thixotropic resin, and reinforced with type "E" glass (minimum 1" lengths of random chopped roving). The resultant laminate shall have a glass content of approximately 30% by weight.

3.3 Insulating material shall be modified polyisocyanurate foam of 2-pound density, spray applied to all cavities and crevices within all designated insulated areas, incorporating a dead-air space for thermal expansion and further insulation.

3.4 Each panel's framework reinforcement shall be 1/4" thickness high-density composites for resultant high-impact resistance of the finished sections. 3/4" plywood may be laminated as necessary to the inside surfaces for mounting equipment, as the manufacturer or contractor deems necessary.

3.5 All surfaces shall be finished with 15 mil thickness of white pigmented isophthalic polyester gelcoat with ultraviolet inhibitors, resistant to weathering and sunlight.

3.6 All fasteners, hardware and hinges shall be stainless steel, aluminum- or zinc-plated.

3.7 The finished and installed building shall withstand 125 mph windload and 40 pound-per-square-foot snow load.

3.8 The minimum physical standards for the fiberglass composite structure shall be:

Tensile Strength 12,000 PSI

Flexural Strength 20,000 PSI

Water Absorption, % 24 HRS .01%

4.0 INSULATING CAPABILITIES

4.1 Composite materials utilized within the wall and roof sections shall have an average insulation R-value of approximately 20. (The finished structure may have a value exceeding R-27, assuming proper workmanship and sealant is applied during field placement.)

5.0 INSULATING SOUND CAPABILITIES

5.1 The enclosure shall reduce the noise level of the equipment by approximately 8dBa to the outside area. Special modifications may increase the sound blocking and absorption efficiency.