

07410 ROOF & WALL PANELS
FIBERGLASS REINFORCED PLASTIC (FRP) PANEL SPECIFICATION
TRED-SAFE
 PART 1 GENERAL

1.01 Description of Work

This specification covers roof and/or wall units and associated flashing trim as indicated on the drawings; including but not necessarily limited to:

- A. Fiberglass Reinforced Plastic (FRP) Wall &/or Roof Panels
- B. FRP flashing / trim
- C. Fasteners required for FRP panels and flashing trim
- D. Sealants and closures required for complete installation as indicated on drawings
- E, F, G. FRP Louvers, Ventilators, Gutters / Downspouts (if applicable)

1.02 Quality Assurance

- A. Products of Resolite, a Stabilit America Co., 285 Industrial Drive, Moscow, TN 38057, Ph: 888-737-6548 establish the required level of quality.
- B. Manufacturer of FRP panels shall be ISO 9002 certified.

1.03 Product Substitutions

- A. Any substitution must meet the minimum quality and performance standards specified.
- B. Applications for substitution must include technical information including full scale test data, samples and any other information required for evaluation.

1.04 Performance Testing

- A. Wall and/or roof panels shall meet the Performance Criteria described below for the spans indicated on the drawings. Structural performance shall be determined by full scale test method ASTM E72 and shall be in compliance with Standard Specification for Glass-Fiber-Reinforced Polyester Plastic Panels ASTM D 3841.

| LOADS | ROOFING | SIDING |
|----------------------------------|----------------|---------------|
| Positive Wind (psf) | | |
| Negative Wind (psf) | | |
| Live Load (psf) | | |
| ALLOWABLE DEFLECTIONS L/D | 45 max. | 20 max. |
| FACTORS OF SAFETY | | |
| Wind Loads (positive & negative) | 1.88 | 1.88 |
| Live Loads | 2.50 | N/A |
| Fastener Pullover | 1.88 | 1.88 |

07410 ROOF & WALL PANELS
FIBERGLASS REINFORCED PLASTIC (FRP) PANEL SPECIFICATION
TRED-SAFE

PART 2 PRODUCT

2.01 Material

- A. Roofing and siding panels shall be manufactured by Resolite and conform to the following specification:
1. Walkable fiberglass reinforced plastic wall and/or roof panels shall be Resolite Tred Safe, type 1645, translucent or opaque corrosion resistant and fire retardant as manufactured by Resolite, a Stabilit America Co., 285 Industrial Drive, Moscow, TN 38057, www.resolite.com.
 2. Glass reinforcement shall be composed of multiple layers of bi-directional continuous strand WOVEN MAT and chopped strand multi-directional glass and shall be a maximum 45% by weight. Both the interior and exterior surfaces of the panel shall have an internal Corrosion Weathering (C/W) barrier fused to the fiberglass matrix during manufacturing process.
 3. Panel shall have a minimum "fastener pull through" resistance of 730 lbs when tested using a #14 fastener with a 3/4" diameter washer pulled in a perpendicular direction to the panel surface. Submit formal test reports verified by an independent testing laboratory for approval.
 4. Resin shall be high quality isophthalic, neopentyl glycol, halogenated polyester with acrylic modification and UV stabilizers. Resin content of the panel shall be a minimum of 55% by weight.
 5. Panel finish shall have an embossed exterior and embossed interior to maximize panel longevity.
 6. Panel weight shall be nominal 16 oz. per square foot.
 7. Color shall be translucent #35 Frost with a 50% light transmission OR opaque #33 Stone White. (Special Custom Colors are available upon request)
 8. Profile shall be standard: 7.2 x 1.5" or 4.2 x 1-1/16" optional: 7.2D x 1.75".
 9. Panels shall be classified as Class 1 with a Flame Spread of 25*. The flame spread rating shall be achieved without the use of fillers.
- B. FRP flashing / trim shall be manufactured by Resolite and conform to the following:
1. Profile, dimensions and thickness shall be sufficient to provide for a complete panel installation as shown on the design drawings. NOTE: Do not walk or stand on FRP flashing; they are not designed to resist foot traffic.
 2. Finish shall be embossed exterior / embossed interior.
 3. Color shall be translucent Frost OR opaque Stone White.
- C. Fasteners shall be stainless steel Type 300 series installed per the design drawings and Resolite Technical Data Guide to comply with the maximum load and span requirements. #14 fasteners shall be used to attach panels to supports and SB2 grommet type fasteners shall be used to secure panel side-lap and flashing / trim.
- D. Sealants and closures shall be installed where shown on design drawings. Sealants shall be 1/8" thick x 3/8" wide non-shrinking non-hardening butyl tape (for opaque panels) and clear silicone (for translucent

**07410 ROOF & WALL PANELS
FIBERGLASS REINFORCED PLASTIC (FRP) PANEL SPECIFICATION
TRED-SAFE**

panels). Closures shall be made of an inert foam material (EDPM, EPT, Polyethylene, etc.) of profile to match wall / roof panel and capable of resisting UV rays as well as atmospheric and corrosive conditions which may be present.

E, F, G. FRP Louvers, Ventilators, Gutters / Downspouts (if applicable).

PART 3 EXECUTION

3.01 Storage and Handling

- A. Keep panels covered and protected until used. To prevent permanent clouding or internal fiberbloom caused by trapped moisture, the panels must be stored on edge so moisture can drain off **DO NOT STORE FLAT**. Store UP and OFF the ground and allow for proper ventilation. When possible, store under roof.
- B. Care shall be used when handling FRP panels to keep them free from scratches, abrasions, cracked edges, impact, etc. A spreader bar shall be used when lifting Resolite panels. Do not use wire slings without fully protecting the materials from damage.

3.02 Inspection

- A. Examine alignment of structural steel and related supports prior to installation and do not proceed until the defects are corrected by the responsible contractor.

3.03 Installation

- A. Panels shall be installed plumb and true in proper alignment and relation to the structural framing.
- B. Install FRP panels, fasteners, trim and related sealants in accordance with approved shop drawings and/or manufacturing standards.

*Resolite advises that the numerical flame spread classification is not intended to reflect hazards presented by this or any other material under actual fire conditions.

----- END OF SPECIFICATION -----