

DURALITE® HIGH STRENGTH Daylighting Panels

PRODUCT CODE: *DLW**

PRODUCT

Duralite High Strength (DLW) translucent and opaque Fiberglass Reinforced Plastic (FRP) panels are produced with acrylic modified resin and contains UV stabilizers. This resin is combined with woven roving and random chopped fiberglass to achieve added strength. This panel offers light transmission, standard chemical resistance, and is suitable for a variety of applications.

PURPOSE

Duralite High Strength panels are used where standard weathering characteristics are required. This panel offers light transmission, standard chemical resistance, and is suitable for a variety of applications. This panel is available Florida approved as a 162 profile (R-panel).

DESIGN PROPERTIES

PRODUCT CODE	TYPE	WEIGHT	COLOR	LIGHT TRANSMISSION	SIZE
xxxDLW xxx = Profile Number	Translucent	8 oz./ft ²	405 Snowflake White 448 Frost 502 Clear	40% 80%	As defined by tooling and approved drawing
	Opaque	8 oz./ft ²	856 Beige 675 Gray	N/A	As defined by tooling and approved drawing

Percentages of light transmission shown are nominal values with a tolerance of + or - 5%
Methods of test: Light Transmission per ASTM D1494

TYPICAL PHYSICAL PROPERTIES

PROPERTY	DLW	TEST METHOD
TENSILE STRENGTH	25 x 10 ³ psi 172 MPa	ASTM - D638
TENSILE MODULUS	0.7 x 10 ⁶ psi 4826 MPa	ASTM - D638
FLEXURAL STRENGTH	22 x 10 ³ psi 152 MPa	ASTM - D790
FLEXURAL MODULUS	1.6 x 10 ⁶ psi 11,032 MPa	ASTM - D790
BARCOL HARDNESS	45	ASTM - D2583
COEFFICIENT OF LINEAR THERMAL EXPANSION	1.6 x 10 ⁻⁵ in/in/°F 29 μm/m/°C	ASTM - D696
IZOD IMPACT	13 ft-lb/in notched 0.69 J/mm	ASTM - D256
AVERAGE BURN RATE	≤ 2.5 in/min	ASTM - D635
ICC COMBUSTIBILITY CLASSIFICATION	CC2	ASTM - D635
SELF IGNITION TEMPERATURE	> 650°F > 343°C	ASTM - D1929
FLASH IGNITION TEMPERATURE	> 650°F > 343°C	ASTM - D1929

TESTING

Valto Engineered Materials (called VALTO hereafter) panels meet or exceed applicable requirements of the following standards:

1. ASTM D3841, Standard Specification for Glass Fiber Reinforced Polyester Plastic Panels.
2. Code requirements of most state, county and municipal building departments.
3. Valto Engineered Materials is a recognized UL90 component manufacturer.

SPECIFICATIONS

VALTO panels are manufactured by a continuous laminating process in lengths as required.

COMPOSITION

Reinforcement: Random chopped fiberglass.

Resin Mix: Polyester/styrene copolymer, inorganic fillers, and pigments.

FINISHED PANEL QUALITY

1. Panels shall have a wear side with a smooth or textured finish. Color shall be uniform throughout as specified. The backside shall be smooth. The backside surface may have some variations which do not affect functional properties and are not cause for rejection.
2. Physical properties shall be as set forth on Page 1.
3. Dimensions shall be as specified on purchase order, subject to the following tolerances:

WIDTH:	±1/8" (±3.2 mm)
LENGTH:	±1/8" (±3.2 mm) up to 12" (3.7 m)
SQUARENESS:	±1/8" (3.2 mm) in 48" (1.2 m) of width
4. Product quality standards and tolerances for panel weight and thickness shall be as set forth in Valto Engineered Materials' Quality Control Procedures/Standards which are available on request.

CERTIFICATIONS

FRP does not support mold or mildew (per ASTM D3273 and ASTM D3274).

FABRICATING RECOMMENDATIONS

NOTE: Protect your eyes with goggles; cover your nose and mouth with a filter mask; cover exposed skin when cutting VALTO panels.

HAND FABRICATING: Drilling—High speed drill bit (60° cutting angle, with 12°-15° clearance) or hole saw.

CUTTING: Sheet metal shears or circular saw with reinforced carborundum or carbide-tipped blade.

PRODUCTION FABRICATING: Use carbide-tipped tools. Straight cuts can be sheared (90° cutting edge with 0.002" [0.05 mm] clearance) or sawed.

For irregular cuts, use die punch or band saw.

SDS: Prior to working with our products, see our most current SDS at valtoem.com/sds

STORAGE RECOMMENDATIONS

Store panels properly. While a single panel is engineered to withstand exposure to sunlight and the elements, a stack of panels will trap heat and moisture, causing internal clouding and/or yellowing in the panels. To avoid this irreversible effect, panels must be stored in a dry, shaded, well ventilated area. Skids should be elevated at one end by wood spacers. Failure to comply with recommended storage procedures will void the warranty on the panels.

CAUTIONS AND SAFETY WARNINGS

DO NOT WALK ON PANELS. Valto Engineered Materials panels are not intended to support the undistributed weight of workers. Roofing ladders or 1" x 12" planks, or equivalent means of protection must be used during any work on roofs. Provide fall protection in accordance with OSHA standard 29 CFR 1910 [see paragraph 1910.23(a)(4) AND (e)(8)]. Compliance with this regulation as well as any other local, state or federal safety requirements is the responsibility of the building owner, contractor and/or erector.

MAINTENANCE

Panels will provide a clean, aesthetically-pleasing finished installation. However, by nature, fiberglass reinforced plastic paneling may occasionally have small areas that are aesthetically unacceptable for use. Panels should be inspected on-site prior to installation. If any portion of material does not provide an acceptable appearance, Valto Engineered Materials should be notified at once. Upon verification of unacceptability, that portion of material will be replaced by Valto Engineered Materials. Valto Engineered Materials' sole responsibility is for the replacement of defective materials but not for labor or other handling or installation expenses.

At Valto, we partner with our customers, and through innovation, deliver advanced materials that enhance everyday environments. We succeed through a culture of collaboration, continuous improvement, and excellence. With integrity at our core, we challenge the status quo and pursue innovative approaches that benefit our customers and associates.

Since 1954, Valto Engineered Materials has provided innovative products and services and is a leading provider of FRP composite panels. Our lightweight composite products deliver unsurpassed strength and durability; and we continue to pioneer next level performance in building materials, recreational vehicles, and transportation.