



Fiberglass Reinforced Polymer Panels

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Technical Data

Product Description Tred-Safe DECK

TRED-SAFE DECK

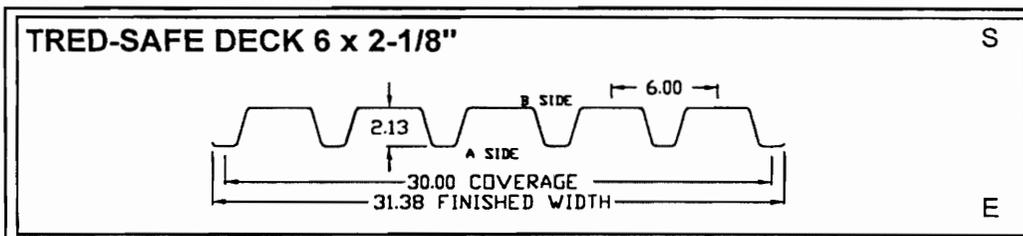
After 45 years of experience producing fiberglass reinforced polymer panels for the corrosion and industrial markets, Resolite is now drawing on that knowledge to provide a deck product with a special blend of corrosion and moisture resistant vinyl ester resin and fiberglass reinforcement. Resolite Tred-Safe DECK is an industrial construction unit that integrates corrosion resistance and high strength in a lightweight assembly.

Resolite Tred-Safe DECK is the smart choice for the highly corrosive environments found in pulp and paper mills, galvanizing plants, salt operations, metal processing and chemical plants. Tred-Safe DECK is the ideal replacement for old wood decks, spalling concrete channel slabs or other deteriorated systems. It can be used either as a support for a built-up or single ply roofing system, or as a form for poured reinforced concrete slabs.

The unique combination of fiberglass reinforcement built into Tred-Safe DECK provides an exceptionally strong unit. Building owners and installers can be assured that Tred-Safe DECK provides a safe working platform and can be used in many of the same applications as light gauge metal roof deck.

TRED-SAFE DECK FEATURES

- **25* Flame spread rating** - passed the ASTM E 84 Steiner Tunnel Test and achieved a 25* flame spread rating.
- **Corrosion resistant** - produced with a high quality halogenated vinyl ester resin.
- **Embossed surface** - the interior (exposed) surface is embossed creating a resin rich surface to improve performance.
- **Multiple glass reinforcements** - Tred-Safe DECK utilizes a combination of glass reinforcement including bidirectional continuous strand woven and chopped strand glass. This multi-layered glass fiber reinforcement assures installers and building owners that Tred-Safe DECK provides a safe working platform.
- **Outstanding performance** - backed by over 45 years of case history in the corrosion and industrial market.
- **Load/Span data** - based on full scale tests to simulate actual field conditions.



- NOTES:**
1. Load/Span limits are based on full scale panel tests representing actual field conditions.
 2. Panel Span/Deflection ratios (L/D) shall be limited to L/180 for wind or live loads and L/240 for temporary or snow loads.
 3. Factors of safety shall be 1.88 for panels subjected to wind loads and 2.50 for panels subjected to live, temporary and snow loads.
 4. Load/Span limits are based on fasteners with 3/4" (.729") washers in every low.
 5. For heavy sustained loads or unusual load or design conditions, please contact the Resolite Customer Service Department for more information.

ROOFING WIND OR LIVE LOADS (PSF)															
	20			30			40			50			60		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
DECK	7'3"	9'8"	8'11"	6'4"	8'5"	7'9"	5'9"	7'8"	7'1"	5'4"	7'1"	6'7"	5'0"	6'8"	6'2"
ROOFING TEMPORARY OR SNOW LOADS (PSF)															
	20			30			40			50			60		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
DECK	6'7"	8'9"	8'1"	5'9"	7'8"	7'1"	5'2"	7'0"	6'5"	4'10"	6'6"	6'0"	4'7"	6'1"	5'7"

Product Description

Tred-Safe DECK

(continued)

PHYSICAL PROPERTIES

Types Available	Deck
Nominal Wt., oz./sq.ft.	16 oz.
Nominal Thickness, in.	.085
Nominal Glass Content	50%

Hardness, Barcol ASTM D 2583	45
Flexural Strength, psi ASTM D 790	70,000
Flexural Modulus, psi ASTM D 790	2.8×10^6
Tensile Strength, psi ASTM D 638	42,000
Stiffness, EI	$2.47 \times 10^6 \text{ lb in}^2/\text{ft}$
Fastener Pull-thru	600 lb/ fastener (3/4" washers) 860 lb/ fastener (1-1/8" washers)
Moment Capacity	17,000 in lb/ft
Flame Spread Classification ASTM E 84	25*

* 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.

SPECIFICATION (Short Form)

1. Fiberglass reinforced polymer deck panels shall be Resolite Tred-Safe DECK as manufactured by Resolite, a United Dominion Company, Zelienople, PA.
2. Glass reinforcement shall be composed of multiple layers of bidirectional continuous strand woven and chopped strand glass and shall be approximately 50% by weight.
3. Resin shall be high quality halogenated vinyl ester.
4. Finish shall be smooth exterior/embossed interior.
5. Panel weight shall be nominal 16 oz. per square foot.
6. Color shall be No. 237 White.
7. Profile shall be 6 x 2-1/8"; 30" Coverage. Length shall be _____.
8. Deck panels shall have passed the ASTM E 84 Steiner Tunnel Test and achieved a 25* flame spread rating.

Due to its excellent corrosive and structural qualities, vinyl ester resin is used to manufacture Tred-Safe DECK. However, vinyl ester resin has a major drawback; it has poor resistance to UV and will weather very quickly. Tred-Safe DECK still provides good performance since it is an interior product and not subject to UV degradation. Care should be taken during installation to limit uncovered exposure and units should be stored indoors.

FRP deck units, in general, are not addressed by the major building codes. Therefore, ultimate review and approval of FRP deck applications is the responsibility of the local building official or designated design agent.