FIBERGLASS DECKING SYSTEMS
SAFPLANK®, SAFDECK® and STRONGDEK™
SAFPLANK® Interlocking Decking System

**Features**

SAFPLANK® is a high strength system of fiberglass planks designed to interlock to form a continuous solid surface. SAFPLANK® is intended to replace wood, aluminum or steel planks in environments where corrosion or rotting creates costly maintenance problems or unsafe conditions.

SAFPLANK® panels are:
- Corrosion Resistant
- Easy to Install
- Strong
- Lightweight
- Easy to Maintain
- Low in Conductivity
- Non-sparking
- Interlocking

**Sizes**

SAFPLANK® is available in 2" deep panels in 12" and 24" widths and in a slotted version to offer flexibility in design. Stock panels are available in 20’ and 24’ lengths. Other lengths are available upon request. SAFPLANK® may be ordered with a smooth surface for non-pedestrian applications.

**Materials of Construction**

SAFPLANK® is a composite of fiberglass reinforcements (glass and mat) and a thermoset resin system. The pultrusion process is used to produce the panels.

The standard resin system is a slate gray fire retardant polyester resin meeting the requirements of Class 1 flame spread rating of 25 or less per ASTM E-84 and the self-extinguishing requirements of ASTM D-635. The resin is UV inhibited and the composite includes a surface veil on all exposed surfaces for enhanced corrosion and UV protection. Other resins and colors are available upon request.

The standard grit system for SAFPLANK® is a polyurethane based fine grit. This grit system is recommended for light pedestrian traffic only. Other grit systems available include epoxy medium and epoxy coarse and may be more appropriate for applications with heavier traffic.

**Applications**

SAFPLANK® is designed to be used for flooring and covers.

Typical applications include:
- Temporary Flooring
- Odor Control Covers
- Windwalls
- Dock Surfacing
- Roofing Surfacing
- Cellular Wall Panels
- Concrete Forming Systems

SAFPLANK®, when turned upside down, serves as an excellent concrete forming system in applications where corrosion and weight are construction concerns.

SAFPLANK® panels are used as air-tight drainage covers in a residential area of Hong Kong for odor control. The lightweight panels provide a safe walking surface and also allows easy access below the covers.

SAFPLANK® odor control covers at a wastewater treatment plant in Smithfield, RI, will withstand the corrosive environment, providing years of trouble-free service.

SAFPLANK® is an excellent material for use on docks. The rot-proof material is both skid resistant and low in thermal conductivity - making it safe for bare feet.

SAFPLANK® is offered in a slotted version to facilitate drainage like shown here on a Philadelphia Eagles stadium deck. Slots are placed in a longitudinal or transverse direction to the plank support to meet ADA standards.
SAFPLANK® Mechanical Properties

Accessories
Two hold-down connections are available for installing SAFPLANK®. Both hold-downs can be used with either 12” or 24” wide SAFPLANK®.

![Image of SAFPLANK® joints and load setups]

### SAFPLANK® Load / Deflection Data

#### 12” SAFPLANK®

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<tr>
<th>SPAN</th>
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<td>914 mm</td>
<td>48”</td>
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#### 24” SAFPLANK®

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### SAFPLANK® Load / Deflection Data (Inverted)

#### 12” SAFPLANK®

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#### 24” SAFPLANK®

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<td>36”</td>
<td>914 mm</td>
<td>48”</td>
<td>1219 mm</td>
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Maximum deflections shown are based on a deflection of approximately L/100. To calculate the maximum deflection for a simply supported beam spanning two equal lengths with the uniform or concentrated load on one span only, multiply the above deflections by 0.71. For ventilated SAFPLANK®, divide deflection values by 0.85.

SAFPLANK® joints have been tested for 300 lbs. concentrated point load applied over 4 in.² area (See ASCE 7 - Minimum Design Loads for Buildings and Other Structures). For 24” span, a 300 lb. concentrated load has a factor of safety (FS) of 6, a 36” span has an FS of 4 and a 48” span has an FS of 3. Spans should be limited to 48” for this type of loading.

- u = Uniform load in lbs/ft² (N/m²). For example, a 100 lb. uniform load over 3 ft² is 300 lbs. of total load.
- c = Concentrated load in lbs/ft² of width (N/m of width)
- ∆u = Typical deflection under the uniform load in inches (mm)
- ∆c = Typical deflection under concentrated load in inches (mm)
SAFDECK® Overlapping Decking System

Features
Strongwell’s SAFDECK® is a specially designed system of 24’ wide, slip resistant, fiberglass panels that overlap for a continuous solid surface. SAFDECK® is intended to replace wood, aluminum or steel decking in environments where corrosion or rotting creates costly maintenance problems or unsafe conditions. Low in conductivity and non-sparking, SAFDECK® provides safe walkways in applications near electrical lines.

SAFDECK® panels are:
- Corrosion Resistant
- Easy to Install
- Strong
- Lightweight
- Slip Resistant
- Low in Conductivity
- Non-sparking
- Overlapping

Sizes
SAFDECK® is available in 1-1/8” deep panels in 24” widths. The decking system is designed to be a one-for-one replacement for plywood and has a 60-pound per square foot rating at 3-foot spans with less than L/180 deflection.

All panels are gritted and are available in 20’ and 24’ lengths. Other lengths are available upon request. SAFDECK® may be ordered with a smooth surface for non-pedestrian applications.

Materials of Construction
SAFDECK® is a high strength, one-piece, overlapping panel system. Manufactured of pultruded fiberglass reinforced polymer (FRP), SAFDECK® is particularly well suited for corrosive environments.

The standard resin system is a slate gray fire retardant polyester resin meeting the requirements of Class 1 flame spread rating of 25 or less per ASTM E-84 and the self-extinguishing requirements of ASTM D-635. The resin is UV inhibited and the composite includes a surface veil on all exposed surfaces for enhanced corrosion and UV protection. Other resins and colors are available upon request.

The standard grit system for SAFDECK® is a polyurethane based fine grit. This grit system is recommended for light pedestrian traffic only. Other grit systems available include epoxy medium and epoxy coarse and may be more appropriate for applications with heavier traffic.

Applications
SAFPLANK® is designed to be used for flooring and covers.

Typical applications include:
- Cooling Tower Decking
- Odor Control Covers
- Roofing Walkways
- Temporary Flooring
- Wind Walls
- Cellular Wall Panels

SAFDECK® can also be supplied with a smooth surface for use in hot water basin applications.
SAFDECK® Mechanical Properties

24" SAFDECK® Load / Deflection Data

\[ L_{02} = 0.4399 \text{ in.}^4 \quad W_l = 4.1 \text{ lb./lin. ft. (gritted)} \]

<table>
<thead>
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<th>SPAN LENGTH (I)</th>
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Maximum deflections shown are based on a deflection of approximately \(L/100\). To calculate the maximum deflection for a simply supported continuous beam spanning two equal lengths with the uniform or concentrated load on one span only, multiply the above deflections by 0.71.

\(u\) = Uniform load in lbs/ft\(^2\) (N/m\(^2\)). For example, a 100 lb. uniform load over 3 ft.\(^2\) is 300 lbs. of total load.

\(\Delta u\) = Typical deflection under the uniform load in inches (mm)

\(c\) = Concentrated load in lbs/ft of width (N/m of width)

\(\Delta c\) = Typical deflection under concentrated load in inches (mm)
STRONGDEK™ Architectural Decking System

Features

STRONGDEK™ fiberglass decking is an attractive, low-maintenance architectural decking system that offers an alternative to traditional decking materials. The panels will not rot, rust, chip or mildew, which make them ideal for high-moisture environments, including saltwater. STRONGDEK™ commonly replaces wood or plastic lumber in applications requiring stronger decking materials.

STRONGDEK™ panels are designed to connect to form a continuous solid surface utilizing an innovative interlocking design. The deck sections are easily installed with screw-like fasteners that are not visible, creating a smooth, attractive surface.

STRONGDEK™ panels are:
- Easy to Install
- Strong
- Slip Resistant
- Lightweight
- Hidden Fastening System
- Rot, Rust & Mildew Resistant
- Low in Conductivity

Sizes

STRONGDEK™ is 12” wide and standard 24’ panels are available in stock. Panels can also be produced in any length that is practical.

Materials of Construction

STRONGDEK™ is a high strength, planking panel system. Manufactured of pultruded fiberglass reinforced polymer (FRP). STRONGDEK™ panels have intermediate ribs on each panel that help provide extra stiffness and strength, allowing the deck to perform ideally in areas with pedestrian traffic. An optional grit surface can be added to provide a non-skid surface. Standard colors are light gray and beige.

Applications

STRONGDEK™ is designed to be used for flooring. Typical applications include:
- Hotel Recreational Areas
- Homes and Condominiums
- Buildings in Coastal Areas
- Marinas and Docks
STRONGDEK™ Mechanical Properties

STRONGDEK™ Load / Deflection Data

\[ I_1 = 0.31 \text{ in.}^4 \quad Wt = 1.87 \text{ lb./lin. ft. (gritted)} \]

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\( u \) = Uniform load in lbs/ft\(^2\) (N/m\(^2\)). For example, a 100 lb. uniform load over 3 ft\(^2\) is 300 lbs. of total load.

\( \Delta u \) = Typical deflection under the uniform load in inches (mm)

\( c \) = Concentrated load in lbs/ft of width (N/m of width)

\( \Delta c \) = Typical deflection under concentrated load in inches (mm)

STRONGDEK™ can also be paired with Strongwell’s architectural handrail and fencing to create an attractive area with long-lasting beauty.