



MODERN ENGINEERED PRODUCTS, INC.

**STRONGWELL**

## **SAF PLATE®**

### **FIBERGLASS GRITTED PLATE**



- **Skid Resistant**
- **Lightweight**
- **Impact Resistant**
- **Corrosion Resistant**
- **Strong**
- **Cost Effective**
- **Easy to Install**
- **Custom Colors & Finishes**

SAFPLATE® fiberglass gritted plate, is a tough, corrosion resistant floor plate. SAFPLATE®'s unique combination of pultruded fiberglass plate with an anti-skid grit surface creates a textured solid sheet flooring that is ideal for both wet and dry environments. Used in a variety of applications, such as trench covers to contain vapors and fumes or pedestrian bridge walkways for sure footing, SAFPLATE® provides a long-lasting, maintenance-free alternative to steel plate for severe, corrosive environments.

SAFPLATE® is available as solid plate or bonded to DURADEK® or DURAGRID® grating. The standard surface is fine grit. A medium grit or a coarse grit is also available. SAFPLATE® with fine grit is stocked in 4' x 8' panels in standard EXTREN® plate thicknesses of 1/8" and 1/4". Optional plate thicknesses include 3/16", 3/8", 1/2", 5/8", 3/4" and 1" sizes. Standard SAFPLATE® is Series 525, which is a fiberglass reinforced polyester with fire retardant in a gray color. Other resin systems and custom colors are available upon request.

## SAFPLATE® Load / Deflection Data

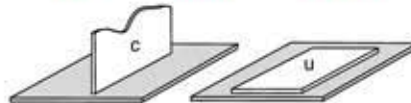
### Maximum Deflection L/100 or t/2

Thickness	Span									
	12" (305mm)	18" (458mm)	24" (610mm)	30" (762mm)	36" (915mm)	42" (1067mm)	48" (1220mm)	54" (1372mm)	60" (1524mm)	
<b>1/4"</b> (6.4 mm)	u	167 (8.00)	34 (1.63)	11 (0.53)						
	Δu	.120 (3.05)	.125 (3.18)	.125 (3.18)						
	c	104 (1.52)	32 (0.47)	14 (0.20)						
	Δc	.120 (3.05)	.125 (3.18)	.125 (3.18)						
<b>3/8"</b> (9.6 mm)	u	562 (26.91)	167 (8.00)	55 (2.63)	23 (1.10)	11 (0.53)				
	Δu	.120 (3.05)	.180 (4.57)	.188 (4.78)	.188 (4.78)	.188 (4.78)				
	c	351 (5.12)	156 (2.28)	69 (1.01)	35 (0.51)	20 (0.29)				
	Δc	.120 (3.05)	.180 (4.57)	.188 (4.78)	.188 (4.78)	.188 (4.78)				
<b>1/2"</b> (12.7 mm)	u	1333 (63.82)	370 (17.72)	167 (8.00)	71 (3.40)	34 (1.63)	18 (0.86)	11 (0.53)		
	Δu	.120 (3.05)	.180 (4.57)	.240 (6.10)	.25 (6.35)	.25 (6.35)	.25 (6.35)	.25 (6.35)		
	c	833 (12.15)	370 (5.40)	209 (3.05)	111 (1.62)	65 (0.95)	40 (0.58)	27 (0.39)		
	Δc	.120 (3.05)	.180 (4.57)	.240 (6.10)	.25 (6.35)	.25 (6.35)	.25 (6.35)	.25 (6.35)		
<b>5/8"</b> (15.9 mm)	u	2600 (124.49)	768 (36.77)	326 (15.61)	167 (8.00)	84 (4.02)	45 (2.15)	27 (1.29)	17 (0.81)	11 (0.53)
	Δu	.120 (3.05)	.180 (4.57)	.240 (6.10)	.300 (7.62)	.312 (7.92)	.312 (7.92)	.312 (7.92)	.312 (7.92)	.312 (7.92)
	c	1622 (23.66)	723 (10.55)	407 (5.94)	260 (3.79)	157 (2.29)	99 (1.44)	66 (0.96)	47 (0.69)	34 (0.50)
	Δc	.120 (3.05)	.180 (4.57)	.240 (6.10)	.300 (7.62)	.312 (7.92)	.312 (7.92)	.312 (7.92)	.312 (7.92)	.312 (7.92)
<b>3/4"</b> (19.1 mm)	u	4499 (215.41)	1333 (63.82)	563 (26.96)	288 (13.79)	167 (8.00)	94 (4.50)	55 (2.63)	34 (1.63)	22 (1.05)
	Δu	.120 (3.05)	.180 (4.57)	.240 (6.10)	.300 (7.62)	.360 (9.14)	.375 (9.53)	.375 (9.53)	.375 (9.53)	.375 (9.53)
	c	2804 (40.91)	1250 (18.24)	702 (10.24)	450 (6.57)	313 (4.57)	205 (2.99)	138 (2.01)	97 (1.42)	71 (1.04)
	Δc	.120 (3.05)	.180 (4.57)	.240 (6.10)	.300 (7.62)	.360 (9.14)	.375 (9.53)	.375 (9.53)	.375 (9.53)	.375 (9.53)
<b>1"</b> (25.4 mm)	u	10677 (511.21)	3158 (151.21)	1333 (63.82)	682 (32.65)	396 (18.96)	248 (11.87)	167 (8.00)	108 (5.17)	71 (3.40)
	Δu	.120 (3.05)	.180 (4.57)	.240 (6.10)	.300 (7.62)	.360 (9.14)	.420 (10.67)	.480 (12.19)	.500 (12.70)	.500 (12.70)
	c	6667 (97.27)	2956 (43.13)	1667 (24.32)	1068 (15.58)	740 (10.80)	544 (7.94)	416 (6.07)	305 (4.45)	222 (3.24)
	Δc	.120 (3.05)	.180 (4.57)	.240 (6.10)	.300 (7.62)	.360 (9.14)	.420 (10.67)	.480 (12.19)	.500 (12.70)	.500 (12.70)

• Sheet spanning in lengthwise direction.

• For allowable loads when sheet is spanning in crosswise direction, multiply table values by 0.55 for 1/4" (6.35 mm) and .70 (17.78 mm) for all other thicknesses.

NOTE: All table values are typical.



c CONCENTRATED LOAD LBS/FT OF WIDTH (KN/m of width)  
 Δc DEFLECTION INCHES (mm) UNDER CONCENTRATED LOAD  
 u UNIFORM LOAD LBS/FT² (KN/m²)  
 Δu DEFLECTION INCHES (mm) UNDER UNIFORM LOAD  
 L SIMPLE SPAN  
 t THICKNESS

## SAFPLATE® Bonded to DURADEK® Load / Deflection Data

### Maximum Uniform Load (lbs/ft²) (KN/m²) for 0.25" (6.35mm) Deflection

Series	Span								
	24" (610mm)	30" (762mm)	36" (915mm)	42" (1067mm)	48" (1220mm)	54" (1372mm)	60" (1524mm)	66" (1677mm)	72" (1829mm)
I-6000 1" (25.4 mm) with 1/8" (3.18 mm) Plate	1522 (72.87)	647 (30.98)	321 (15.37)	174 (8.33)	104 (4.98)	65 (3.11)			
I-6000 1 1/2" (38.1 mm) with 1/8" (3.18 mm) Plate	3854 (184.53)	1624 (77.76)	797 (38.16)	437 (20.92)	259 (12.40)	163 (7.80)	107 (5.12)	73 (3.50)	
T-5000 2" (50.8 mm) with 1/8" (3.18 mm) Plate	6167 (295.28)	2572 (123.15)	1260 (60.33)	689 (32.99)	410 (19.63)	260 (12.45)	172 (8.24)	118 (5.65)	84 (4.02)

NOTE: All table values are typical. See DURADEK® literature for available widths.

### Typical Properties of SAFPLATE® 1

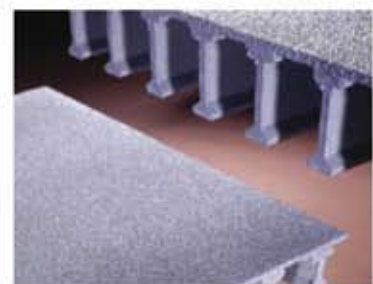
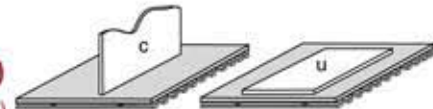
Mechanical Properties (coupons)	Test Method	Longitudinal Direction (psi) (MPa)	Transverse <sup>2</sup> Direction (psi) (MPa)
Ultimate Tensile Strength	D638	20,000 (138)	7.5 - 10 x 10 <sup>3</sup> (52 - 69)
Ultimate Compressive Strength	D695	24,000 (165)	15.5 - 20 x 10 <sup>3</sup> (107 - 138)
Ultimate Flexural Strength	D790	30,000 (207)	13 - 18 x 10 <sup>3</sup> (90 - 124)
Tensile Modulus	D638	1.8 x 10 <sup>6</sup> (12411)	0.7 - 1.4 x 10 <sup>6</sup> (4826 - 9653)
Compressive Modulus	D695	1.8 x 10 <sup>6</sup> (12411)	1.0 x 10 <sup>6</sup> (6895)
Flexural Modulus	D790	1.8 x 10 <sup>6</sup> (12411)	1.1 x 10 <sup>6</sup> (7584)
Ultimate Bearing Strength	D953	32,000 (221)	—

All values are minimum ultimate properties

<sup>1</sup> Standard SAFPLATE® using EXTREN® S-525 plate. See the Strongwell *Design Manual* for properties with other resin systems.

<sup>2</sup> Value range from 1/8" (3.18 mm) - 1" (25.4 mm) plate thickness.

NOTE: Standard SAFPLATE® is manufactured using EXTREN® Series 525 plate which has a Class 1 flame rating of 25 or less per ASTM E-84 and meets the self-extinguishing requirements of ASTM D-635. Regardless of grit selection, SAFPLATE® has a Static Coefficient of Friction (per ASTM D-2047) which exceeds the OSHA and ADA requirements for skid resistance.



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