



A valmont COMPANY

# Safe T Perf®

## Adaptable:

Safe-T-Perf® is available in various hole sizes and patterns, to suit the particular application and can be easily custom fabricated to particular sizes or requirements. Its light weight minimises the structural supports required, while still offering excellent load bearing characteristics. It can be confidently specified in heavy traffic areas.

Internal or external installations are equally well suited, and will only influence the choice of material and/or coating.

## Safety:

The 360° design ensures Safe-T-Perf® offers a highly effective non slip surface, even if foot traffic continually changes direction. This surface is part of the core product, not an additional layer that may strip off. Drain holes are large enough to prevent liquid from pooling on the surface, yet small enough to protect areas below the walkway from any heavy or sharp objects falling through.

## Availability:

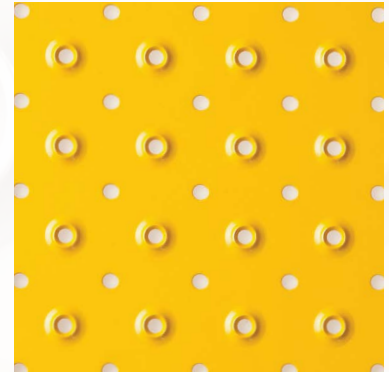
Safe-T-Perf® is an extremely versatile product, available in:

- Various hole sizes (Stiletto - 6, Universal - 14 & Stock Crate - 19)
- Various Materials (Mild Steel, Hot Dip Galvanised, 304 Stainless Steel, 316 Stainless Steel, Aluminium) and thicknesses (depending on the material chosen)
- Sheets, Stair Treads & Planks.  
NB: Stair Treads and Planks can be supplied with end gussets and fixing holes
- Stock Sizes and Custom Made

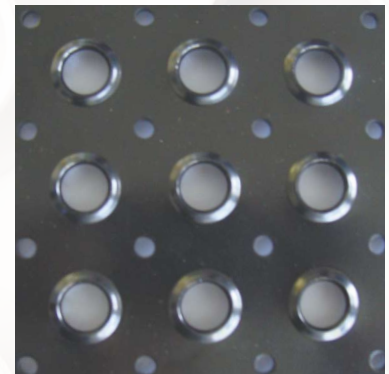
## Safe-T-Perf® Z-Tread

Z-Tread is a unique product, custom made to your application. Z-Treads are pre-formed stair treads, including the going and riser, ready for installation. Z-Tread combines all of the benefits of Safe-T-Perf® with simple and fast installation. In addition, there are no gaps between stairs for objects to fall through.

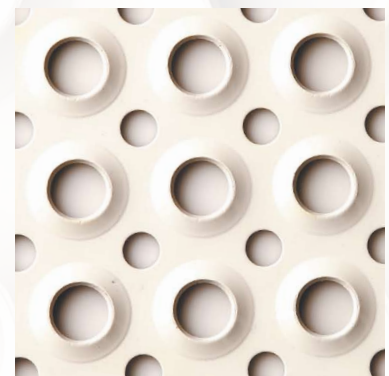
Z-Tread panels are custom made to suit the width, going and riser of the application.



STILETTO - 6



UNIVERSAL - 14



STOCK CRATE - 19

RAISED FLANGE HOLE DIA (mm)	DRAIN HOLE DIA (mm)	CENTRES (mm)	OPEN AREA %
<b>STILETTO - 6</b>			
6.35	6.35	37.0	4.62%
<b>UNIVERSAL - 14</b>			
14.0	5.0	38.1	13%
<b>STOCK CRATE - 19</b>			
19.05	12.70	42.0	13%

### Safe-T-Perf® Plank Load vs Deflection (mm)

NOMINAL WIDTH = 305mm PLANK HEIGHT = 56mm  
Material = 2.5mm Mild Steel

Uniformly Distributed Loading (kPa)	Plank Length/Span (mm)						
	500	750	1000	1500	2000	2500	3000
2.5	0.07	0.15	0.22	0.69	1.94	4.48	8.79
3.0	0.08	0.18	0.27	0.82	2.33	5.38	10.54
4.0	0.11	0.24	0.35	1.10	3.10	7.17	14.06
5.0	0.14	0.30	0.44	1.37	3.88	8.96	17.57
6.0	0.17	0.36	0.53	1.65	4.66	10.76	21.09
7.0	0.20	0.42	0.62	1.92	5.43	12.55	24.60
8.0	0.23	0.47	0.71	2.20	6.21	14.34	28.12
9.0	0.25	0.53	0.80	2.47	6.98	16.14	31.63
10.0	0.28	0.59	0.89	2.74	7.76	17.93	-

#### AS/NZS 4600:2005 UDL Design Pressure

Capacity $R_d$ (kPa)	500	750	1000	1500	2000	2500	3000
	235.6	114.3	88.5	40.8	21.5	13.8	8.9

Concentrated Loading (kN)	Plank Length/Span (mm)						
	500	750	1000	1500	2000	2500	3000
0.5	0.10	0.19	0.31	0.62	1.15	2.07	3.52
1.0	0.20	0.38	0.61	1.24	2.30	4.14	7.03
1.5	0.30	0.57	0.92	1.86	3.45	6.21	10.55
2.0	0.39	0.75	1.22	2.48	4.59	8.27	14.07
2.5	0.49	0.94	1.53	3.10	5.74	10.34	17.59
3.0	0.59	1.13	1.83	3.73	6.89	12.41	21.10
3.5	0.69	1.32	2.14	4.35	8.04	14.48	24.62
4.0	0.79	1.51	2.44	4.97	9.19	16.55	28.14
4.5	0.89	1.70	2.75	5.59	10.34	18.62	-
5.0	0.98	1.89	3.05	6.21	11.48	-	-
5.5	1.08	2.08	3.36	6.83	12.63	-	-
6.0	1.18	2.26	3.66	7.45	13.78	-	-
6.5	1.28	2.45	3.97	8.07	-	-	-
7.0	1.38	2.64	4.27	8.69	-	-	-
7.5	1.48	2.83	4.58	9.31	-	-	-

#### AS/NZS 4600:2005

Concentrated Design Load Capacity $R_d$ (kN)	500	750	1000	1500	2000	2500	3000
	24.8	16.6	13.0	8.1	6.0	4.8	4.0

#### Deflection

Limit/Span on 300	500	750	1000	1500	2000	2500	3000
	1.67	2.50	3.33	5.00	6.67	8.33	10.00

### Safe-T-Perf® Stair Tread Load vs Deflection (mm)

WIDTH = 250mm TREAD DEPTH = 38mm  
Material = 2.5mm Mild Steel

Uniformly Distributed Loading (kPa)	Tread Length/Span (mm)	
	610	1000
2.5	0.12	0.39
3.0	0.15	0.47
4.0	0.20	0.62
5.0	0.24	0.78
6.0	0.29	0.93
7.0	0.34	1.09
8.0	0.39	1.24
9.0	0.44	1.40
10.0	0.49	1.55

#### AS/NZS 4600:2005 UDL Design Pressure

Capacity $R_d$ (kPa)	610	1000
	66.7	46.3

Concentrated Loading (kN)	Tread Length/Span (mm)	
	610	1000
0.5	0.24	0.54
1.0	0.48	1.07
1.5	0.73	1.61
2.0	0.97	2.14
2.5	1.21	2.68
3.0	1.45	3.22
3.5	1.70	3.75
4.0	1.94	4.29
4.5	2.18	4.83
5.0	2.42	5.36
5.5	2.66	-
6.0	2.91	-
6.5	3.15	-
7.0	3.39	-
7.5	3.63	-

#### AS/NZS 4600:2005

Concentrated Design Load Capacity $R_d$ (kN)	610	1000
	8.9	5.1

#### Deflection

Limit/Span on 300	610	1000
	2.03	3.33

### Flat Sheets

2.5mm Mild Steel Flanged hole 14.0mm dia  
Deflection under 1kN concentrated load @ midspan

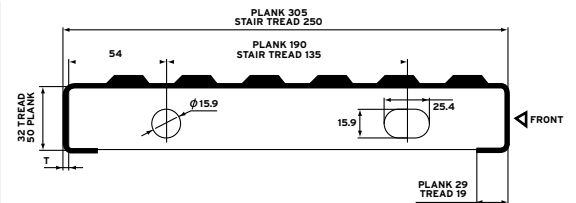
#### One-Way Spanning (Two Edges Supported)

Span (mm)	500	600	700	800	900
Deflection (mm)	4.01	4.72	5.74	7.41	8.31

#### Two-Way Spanning (Four Edges Supported)

Span (mm)	500 x 1000	600 x 1200	700 x 1400	800 x 1600	900 x 1800	1000 x 2000	1100 x 2200	1220 x 2440*
Deflection (mm)	4.63	4.71	4.95	6.64	8.26	7.54	9.23	13.81

\* Stock Sizes



All testing was carried out in accordance with AS/NZS 4600:2005 COLD-FORMED STEEL STRUCTURES where three (3) repeat tests were conducted on each plank/loading/span configuration. Materials tested for the determination of the steels tensile properties were conducted in accordance with AS 1391-2007 METALLIC MATERIAL TENSILE TESTING AT AMBIENT TEMPERATURE. All tests conducted at a NATA accredited laboratory.

For results of the latest slip resistance tests, visit our website. Technical Data Sheet LIF-105 Walkway Slip Resistance.