



ULTRA HIGH PERFORMANCE
STRUCTURAL COMPOSITE DECKING SYSTEM

MECHANICAL PROPERTIES

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$I = 0.119 \text{ in}^4$ or (49,531.54 mm⁴)
 $A = 1.43 \text{ in}^2$ or (921.93 mm²)
 $wt = 4.87 \text{ lb / linear foot}$ or (7.25 kg / linear meter)
 $E = 3,000,000 \text{ psi}$ or (2,068,427 N/cm²)

Uniform Load [Deflection in inches (mm)]

LOAD in LB/SQUARE FOOT (PSF) or KG/SQUARE METER (KG/M²)

SPAN	40 (195)		60 (293)		80 (391)		100 (488)	
	Deflection	L/Ratio	Deflection	L/Ratio	Deflection	L/Ratio	Deflection	L/Ratio
12 in (0.30m)	0.001 (0.03)	11076	0.002 (0.04)	7384	0.002 (0.06)	5538	0.003 (0.07)	4430
16 in (0.41m)	0.003 (0.09)	4673	0.005 (0.13)	3115	0.007 (0.17)	2336	0.009 (0.22)	1869
19.2 in (0.49m)	0.007 (0.18)	2704	0.011 (0.27)	1502	0.014 (0.36)	1127	0.018 (0.45)	901
24 in (0.61m)	0.017 (0.44)	1385	0.026 (0.66)	923	0.035 (0.88)	692	0.043 (1.10)	554
30 in (0.76m)	0.042 (1.07)	709	0.063 (1.61)	473	0.085 (2.15)	354	0.106 (2.69)	284
36 in (0.91m)	0.088 (2.23)	410	0.132 (3.34)	273	0.176 (4.46)	205	0.219 (5.57)	164

Concentrated Load [Deflection in inches (mm)]

LOAD in LBS or kN

SPAN	300 (1.33)		500 (2.22)	
	Deflection	L/Ratio	Deflection	L/Ratio
12 in (0.30m)	0.03 (0.77)	397	0.05 (1.28)	238
16 in (0.41m)	0.07 (1.82)	223	0.12 (3.04)	134
19.2 in (0.49m)	0.12 (3.15)	155	0.21 (5.25)	93
24 in (0.61m)	0.24 (6.15)	99		
30 in (0.76m)				
36 in (0.91m)				

Notes:

Concentrated loads applied at mid-span over an area equal or larger to 4" x the full width.
 Wheel loads assumed to be applied by pneumatic tires only.
 Step nosing load conditions are not included.
 Deflection values are limited to 0.25" maximum deflection.