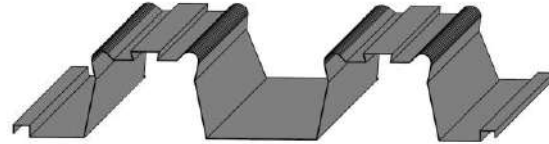


SigDeck100 - Technical Datasheet

Description

SigDeck is the new floor deck profile in Sigmat's product range (2019). The S450 crushed end trapezoidal deck is 110mm deep and available in 0.9mm, 1.1mm and 1.4mm gauges.

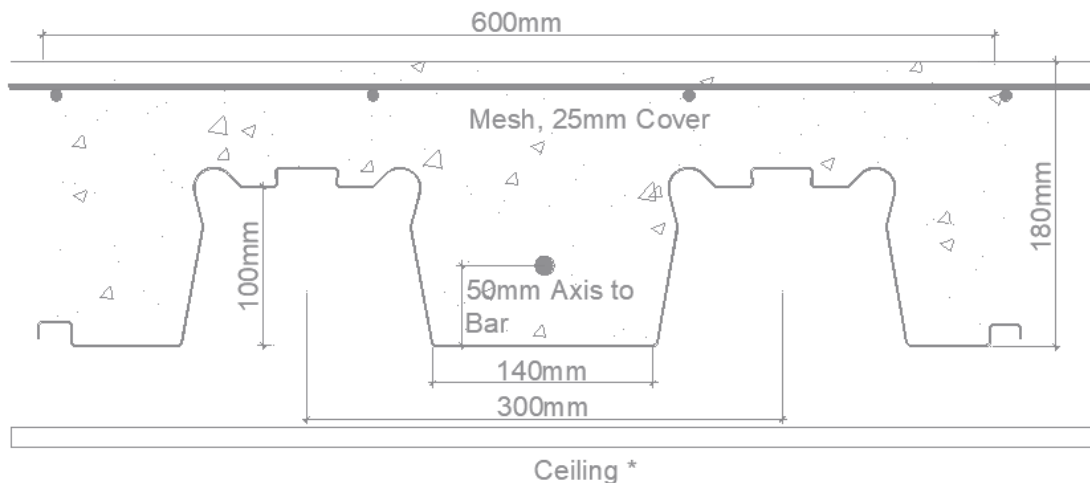


The new range has an outstanding *unpropped* capacity to 5m spans and uses a 180mm deep slab, which gives much more flexibility in build for other trades below the deck. SigDeck can achieve up to 2hr fire rating with varying load types.

Slab Depth (mm)	Volume of Concrete (m ³ /m ²)	Weight of concrete (normal weight)		Weight of Decking and reinforcement (kN/m ²)
		Wet (kN/m ²)	Dry (kN/m ²)	
180 (excluding ponding)	0.127	3.23	3.1	0.185-0.239
180 (max span including ponding)	0.142	3.63	3.49	0.185-0.239

Profile Properties

Nominal Gauge (mm)	Design Gauge (mm)	Steel Grade (N/mm ²)	Profile Weight (kN/m ²) (kg/m ²)	Height of neutral axis (mm)	Area of Steel (mm ² /m)	Moment of Inertia (cm ⁴ /m)
0.9	0.86	450	0.127 (12.95)	54.8	1604	281
1.1	1.06	450	0.156 (15.92)	54.9	1977	347
1.4	1.36	450	0.20 (20.42)	55.05	2537	445



Decking type	Construction stage slab depth at mid span, (deflection mm)			
	3.5m	4m	4.5m	5m
180SIG10009	180 (0)	187 (7)	199 (19)	N/A
180SIG10011	180 (0)	183 (3)	189 (9)	203 (23)(4.9m)
180SIG10014	180 (0)	180 (0)	186 (6)	197 (17)

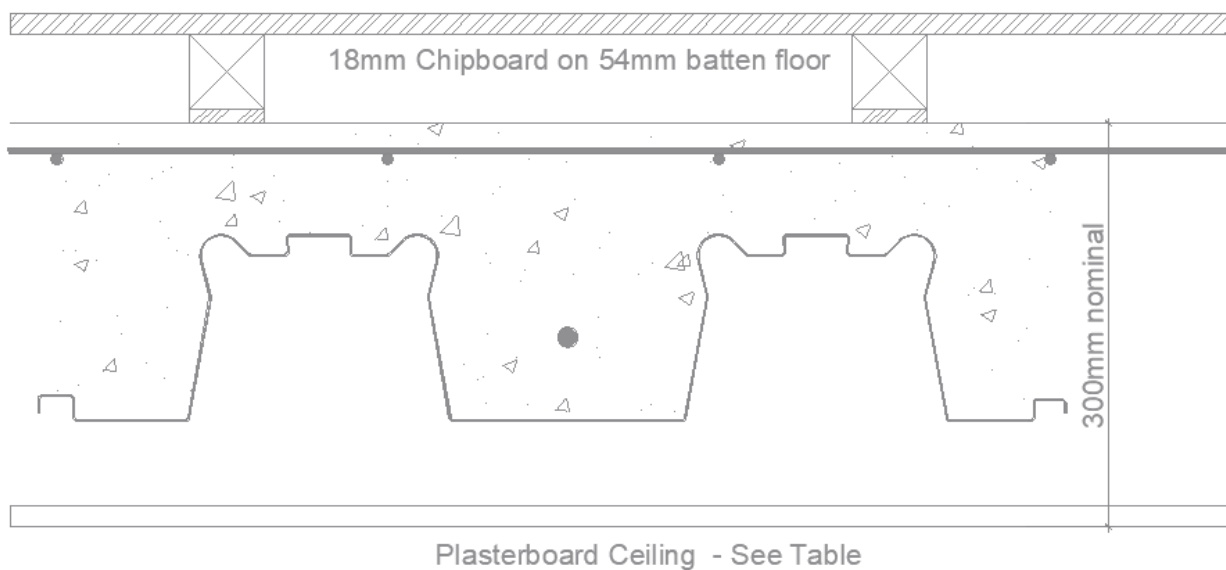
SigDeck100 Loading Tables (Eurocode)

180mm Depth – Single Unpropped Span – S450 – Normal Weight Concrete

Fire Rating (hours)	Mesh and Reinforcement	Total Unfactored applied Load (kN/m ²) – Maximum Permissible Span (m)					
		0.9mm gauge		1.1mm gauge		1.4mm gauge	
		3.5	5.0	3.5	5.0	3.5	5
60	A193 + H12	4.6	4.6	4.9	4.9	5.0	5.0
90	A193 + H12	4.6	4.6	4.9	4.7	5.0	4.6
	A193 + H16	4.6	4.6	4.9	4.9	5.0	5.0
120*	A193 + H12	4.1	3.5	3.8	3.5	3.8	3.5
	A193 + H16	4.6	4.6	4.9	4.9	5.0	4.8

*Note minimum 12.5mm Type F plasterboard ceiling for to achieve insulation criteria for 120 minutes fire rating, any penetrations through the ceiling must be appropriately protected

SigDeck100 Acoustic Information



Slab type	Ceiling Board Density (kg/m ²)	R _w (C; Ctr) dB	L _{n,w} dB	*STC
180SIGDECK100	1 x 9.8	61 (-3; -9)	53	62
180SIGDECK100	2 x 12.6	62 (-2; -7)	49	62

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