

PRESTRESSED PREDALLES LOAD TABLE (UNIFORM LOADS - NOT FOR HEAVY WHEEL LOADS)

Predalles Safe Load Table simply supported - min bearing 75mm - 1hr fire resistance										Mar-26															
Predalles code	Total depth in mm/No. 3X3 Cables	Cables-area 21.2mm ²	Predalles C45 thickness	in situ concrete C25 thickness	Total depth mm	Self weight incl. finishes	Splicing Mesh	Length of Splicing Mesh (l) (between joints)	Total Embodied Carbon (A1 - A5) (on plan)	Loading: Maximum effective simply supported span (m) for unfactored superimposed load (kN/m ²) shown excluding self-weight + 10cm finishes (2kN/m ²). Safe loads in bold are dictated by deflection criteria, but still not sufficient to limit cracking for brittle (masonry) partitions.															
										1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	
70/125/26	26	70	55	125	5.07	A 98	600	44	21.17	15.97	13.05	11.00	9.90	6.53	2.51										
70/125/32	32	70	55	125	5.07	A 98	600	45	20.06	15.12	12.36	10.44	9.41	7.62	3.59										
70/125/36	36	70	55	125	5.07	A 98	600	45	19.51	14.71	12.03	10.17	9.19	7.45	5.74	0.77									
70/150/32	32	70	80	150	5.67	A 142	750	52	28.00	21.30	17.58	15.02	13.74	11.30	8.57	5.54	0.91								
70/150/36	36	70	80	150	5.67	A 142	750	52	27.23	20.71	17.11	14.63	13.40	11.05	8.70	6.63	1.59								
70/175/32	32	70	105	175	6.27	A 193	850	59	35.10	27.16	22.97	19.88	18.33	15.22	12.04	8.15	4.97	1.17							
70/175/36	36	70	105	175	6.27	A 193	850	59	35.10	27.02	22.46	19.34	17.86	14.87	11.84	9.42	5.87	1.91							
100/160/32	32	100	60	160	5.94	A 193	850	57	31.16	24.06	20.04	17.34	16.11	13.54	9.96	6.59	2.43								
100/160/36	36	100	75	175	6.3	A 193	850	57	30.52	23.37	19.47	16.85	15.67	13.18	10.65	7.72	3.20								
100/175/32	32	100	60	160	5.94	A 193	850	61	35.05	27.13	22.94	20.25	16.89	15.89	12.05	8.16	4.98	1.18							
100/175/36	36	100	75	175	6.3	A 193	850	62	35.05	27.13	22.68	19.67	16.41	15.47	12.54	9.53	5.88	1.91							
100/200/36	36	100	100	200	6.9	A 193	850	69	41.54	32.23	27.33	24.18	20.60	19.49	15.85	12.56	8.81	5.84	1.86						
100/200/48	48	100	100	200	6.9	A 193	850	70	41.03	31.59	26.49	23.08	19.37	18.39	15.04	12.38	10.20	8.38	4.18	0.91					
100/225/36	36	100	125	225	7.5	A 193	850	76	48.04	37.34	31.72	28.13	24.13	23.56	19.37	15.75	11.28	7.97	5.45	1.56					
100/225/48	48	100	125	225	7.5	A 193	850	77	48.04	37.34	31.72	27.86	23.44	22.33	18.32	15.14	12.53	10.35	8.49	3.92	0.63				
100/250/36	36	100	150	250	8.1	A 252	1000	83	54.56	42.46	36.13	32.09	27.57	26.96	22.86	18.98	13.86	9.99	7.05	4.75	1.06				
100/250/48	48	100	150	250	8.1	A 252	1000	84	54.56	42.46	36.13	32.09	27.57	26.43	21.75	18.03	14.98	12.43	10.24	7.68	3.44				
100/275/36	36	100	175	275	8.7	A 252	1000	90	67.19	51.56	40.54	38.30	32.85	28.86	25.79	22.22	16.57	12.11	8.73	6.09	4.00	0.42			
100/275/48	48	100	175	275	8.7	A 252	1000	92	67.19	51.56	43.43	38.30	32.85	28.86	25.31	21.04	17.54	14.60	12.09	9.69	6.90	2.78			
100/300/36	36	100	200	300	9.3	A 252	1000	97	74.39	57.14	48.18	42.53	36.50	32.11	28.73	24.78	19.38	14.33	10.49	7.49	5.12	3.32			
100/300/48	48	100	200	300	9.3	A 252	1000	99	74.39	57.14	48.18	42.53	36.50	32.11	28.73	24.17	20.21	16.88	14.03	11.51	8.58	5.98	1.99		
70/70/36	36	70	0	70	3.75			30	33.11	17.82	10.62	6.15	3.17												
100/100/36	36	100	0	100	4.5			40	53.00	33.67	24.00	13.68	10.23	7.25											
No of Props									0	1	1	1	1	1	1	1	2	2	2	2	3	3	3		

Notes to Periti:

(A) Load tables conforming to MSA EN 1992-1-1 Eurocode 2: Design of concrete structures - Part 1-1: General rules and rules for buildings, with both the safe load values satisfying the serviceability limit state (SLS)

(B) **HANDLING AND STORAGE** : Predalles should be lifted by multiple hooks, which should be self-balancing at maximum 500mm from corners. Slab units should be stacked on bearers on firm level ground. Stacks should not be more than 10 units high and each layer seperated by bearers at not more than two meters intervals.

(C) **ERECTION/SEQUENCE OF OPERATIONS** : Predalles slabs should be lifted from transport directly onto prepared supports. Never walk on unsupported slabs. Once the slabs are in position, any loose reinforcement required by the design, including trimming of holes, continuity reinforcement, top reinforcement over supports etc. is placed together with the provision of longitudinal and transverse ties to ensure compliance with stability requirements of structural eurocode 1. Site in-situ concrete is spread, compacted in position, and cured accordingly. Temporary supports are removed between 7-14 days after the in-situ concrete is poured. No additional loading is to be imposed on the cast slab prior to the passage of 28 days.

(D) **Embodied carbon** of the precast elements alone (A1 - A3) are as follows: , 70/26: 28kgCO₂e/m², 70/32: 29kgCO₂e/m², 100/36: 40kgCO₂e/m² and 100/36: 40kgCO₂e/m²

(E) **Embodied carbon** is measured per square meter on plan and includes for the total buildup (incl. in-situ concrete), as outlined in the table. (A1 - A5)

(F) **Length of splicing mesh (l)** shows the length of mesh between each panel. See figure below. When ceiling is plastered, joint underneath panels is to be reinforced by a fibre mesh.

