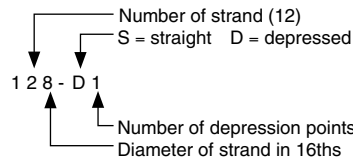


3.4 Double-Tee Load Tables (cont.)

Strand Pattern Designation

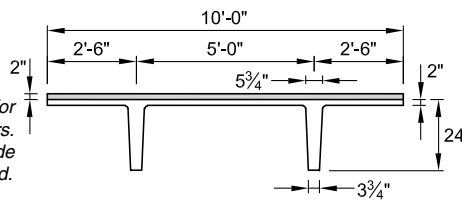


Safe loads shown include dead load of 10 lb/ft² for untopped members and 15 lb/ft² for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

Key

- 179 – Safe superimposed service load, lb/ft²
- 1.0 – Estimated camber at erection, in.
- 1.3 – Estimated long-time camber, in.

10'-0" x 24" Lightweight Concrete



Section Properties

No Topping 2 in. Topping

A	=	449 in. ²	–
I	=	22,469 in. ⁴	31,515 in. ⁴
y _b	=	17.77 in.	20.53 in.
y _i	=	6.23 in.	5.47 in.
S _b	=	1264 in. ³	1535 in. ³
S _i	=	3607 in. ³	5761 in. ³
wt	=	359 lb/ft	609 lb/ft
DL	=	36 lb/ft ²	61 lb/ft ²
V/S	=	1.35 in.	

$f'_c = 5000 \text{ psi}$

$f_{pu} = 270,000 \text{ psi}$

1/2-in.-diameter regular strand

Check with regional producers for availability.

10LDT24

Table of safe superimposed service load, lb/ft², and cambers, in.

No Topping

Strand pattern	y _s (end) y _s (center) in.	Span, ft																												
		30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80			
68-S	4.00	179	155	134	117	103	90	80	70	62	55	49	43	38	34	30	27													
	4.00	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.5													
		1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.7	1.6	1.5	1.3	1.0	0.6													
88-S	5.00			175	154	136	120	107	95	85	76	68	61	55	49	44	40	36	32	29	26									
	5.00			1.6	1.7	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.5	2.4	2.3	2.1									
				2.0	2.2	2.3	2.4	2.5	2.6	2.7	2.7	2.7	2.7	2.6	2.5	2.4	2.2	1.9	1.6	1.1	0.6									
108-S	6.00				185	164	145	130	116	104	94	84	76	69	62	56	51	46	42	38	34	31	27							
	6.00				2.0	2.1	2.3	2.5	2.6	2.8	2.9	3.1	3.2	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.3	3.1	2.9							
					2.5	2.7	2.9	3.0	3.2	3.3	3.4	3.4	3.5	3.4	3.4	3.3	3.2	3.0	2.8	2.5	2.2	1.7	1.1							
128-S	7.00										108	98	87	78	70	63	57	51	47	42	39	35	32	29	26					
	7.00										3.2	3.4	3.5	3.7	3.8	3.9	3.9	4.0	4.0	4.0	3.9	3.9	3.9	3.7	3.6	3.3				
											3.9	4.0	4.0	4.0	4.0	4.0	3.8	3.7	3.5	3.3	3.0	2.6	2.2	1.6	1.0					
128-D1	11.67																	72	65	59	53	48	43	39	35	32	29	27		
	3.25																	4.5	4.6	4.7	4.8	4.8	4.8	4.7	4.5	4.3	4.0	3.7		
																		4.7	4.6	4.4	4.2	3.9	3.5	3.0	2.4	1.7	1.0	0.2		
148-D1	12.86																									47	43	39	35	31
	3.50																									5.6	5.6	5.5	5.4	5.2
																										4.5	4.0	3.4	2.8	2.0

10LDT24 + 2

Table of safe superimposed service load, lb/ft², and cambers, in.

2 in. Normalweight Topping

Strand pattern	y _s (end) y _s (center) in.	Span, ft																											
		30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66									
68-S	4.00	181	154	131	113	97	83	72	62	53	45	38	32																
	4.00	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.7																
		1.0	1.1	1.1	1.1	1.1	1.0	1.0	0.8	0.7	0.5	0.2	-0.1																
88-S	5.00			177	153	133	116	101	89	78	68	59	51	43	35														
	5.00			1.6	1.7	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7															
				1.6	1.6	1.7	1.7	1.6	1.6	1.5	1.3	1.1	0.8	0.5	0.1														
108-S	6.00				188	165	144	127	112	99	87	75	63	53	45	38	32												
	6.00				2.0	2.1	2.3	2.5	2.6	2.8	2.9	3.1	3.2	3.3	3.3	3.4	3.4												
					1.9	2.0	2.1	2.1	2.1	2.1	2.0	1.9	1.8	1.6	1.3	0.9	0.6	0.1											
128-S	7.00										102	88	76	65	55	46	39	33											
	7.00										3.2	3.4	3.5	3.7	3.8	3.9	3.9	4.0											
											2.4	2.2	2.1	1.8	1.5	1.1	0.6	0.1											
128-D1	11.67																									57	49	41	34
	3.25																									4.5	4.6	4.7	4.8
																										1.4	0.9	0.3	-0.4

Strength is based on strain compatibility; bottom tension is limited to $12\sqrt{f'_c}$; see pages 3-8 through 3-11 for explanation. Shaded values require release strengths higher than 3500 psi.