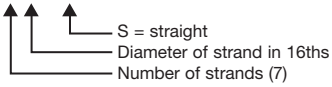


3.8 Solid Flat Slab Load Tables (cont.)

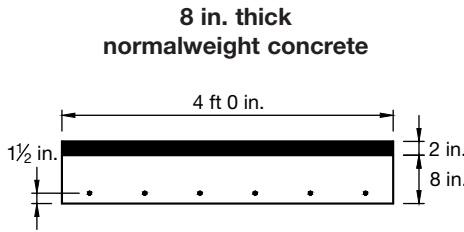
3

Strand Pattern Designation

7 6 - S



Load capacities 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.



$f'_c = 5000$ psi
 $f_{pu} = 270,000$ psi

Section Properties

	No topping	2 in. topping ($f'_c = 3000$ psi)
A	= 384 in. ²	-
I	= 2048 in. ⁴	3630 in. ⁴
y_b	= 4.00 in.	4.81 in.
y_t	= 4.00 in.	5.19 in.
S_b	= 512 in. ³	755 in. ³
S_t	= 512 in. ³	699 in. ³
wt	= 400 lb/ft	500 lb/ft
DL	= 100 lb/ft ²	125 lb/ft ²
V/S	= 3.43 in.	

Key
240 - Superimposed service load capacity, lb/ft²
0.1 - Estimated camber at erection, in.
0.2 - Estimated long-time camber, in.

FS8
No topping

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

Strand pattern	Span, ft																								
	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
66-S	240	218	198	180	165	153	140	128	108	90	77	65	55	45	35	28									
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.5									
	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.5	-0.6	-0.8	-1.0									
76-S		263	243	223	205	190	175	158	134	116	100	86	73	62	52	41	32								
		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.6								
		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	-0.1	-0.2	-0.3	-0.5	-0.7	-0.9	-1.1								
58-S				213	193	180	168	155	145	135	125	118	110	92	78	65	54	44	35	27					
				0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.0	-0.1	-0.2	-0.3	-0.4	-0.6	-0.8						
				0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.0	-0.1	-0.3	-0.5	-0.7	-0.9	-1.2	-1.5					
68-S					248	230	215	200	188	175	165	155	134	117	101	87	74	63	52	43	34	27			
					0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.1	0.0	-0.1	-0.3	-0.5	-0.6	-0.9			
					0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.3	0.2	0.0	-0.1	-0.3	-0.5	-0.8	-1.0	-1.4	-1.7			
78-S						258	243	228	215	205	183	161	142	124	108	94	81	70	59	50	41	33	26		
						0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.0	-0.1	-0.3	-0.5	-0.7	-1.0		
						0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.3	0.2	0.1	-0.1	-0.3	-0.6	-0.9	-1.2	-1.6	-2.0		

FS8 + 2

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

2 in. normalweight topping

Strand pattern	Span, ft																								
	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33						
66-S	263	243	223	205	190	163	139	119	98	75	55	37													
	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.2	-0.3													
	0.1	0.1	0.1	0.0	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.6	-0.8													
76-S		295	273	255	235	205	180	155	125	99	77	57	40												
		0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	-0.1	-0.1	-0.2	-0.3												
		0.2	0.2	0.1	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.5	-0.6	-0.8												
58-S				240	223	208	195	180	170	147	121	98	78	59	43	28									
				0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.4									
				0.3	0.3	0.2	0.2	0.1	0.0	-0.1	-0.2	-0.3	-0.5	-0.7	-0.9	-1.1									
68-S					285	268	250	235	220	190	161	135	112	91	72	56	40	27							
					0.4	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.0	-0.1	-0.3	-0.5							
					0.4	0.4	0.4	0.3	0.3	0.2	0.1	-0.1	-0.2	-0.4	-0.6	-0.8	-1.1	-1.4							
78-S						323	305	300	273	234	201	172	146	123	102	83	66	51	37						
						0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.0	-0.1	-0.3						
						0.6	0.5	0.5	0.5	0.4	0.3	0.2	0.1	-0.1	-0.2	-0.5	-0.7	-1.0	-1.3						

Strength is based on strain compatibility; bottom tension is limited to $7.5 \sqrt{f'_c}$; see pages 3-8 through 3-11 for explanation. See Section 3.3.2, Item 3, Note 4 for explanation of vertical line.