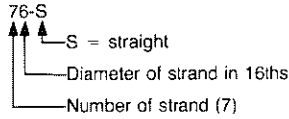


HOLLOW-CORE

Strand Pattern Designation

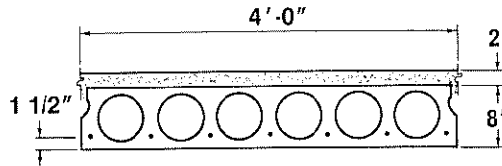


4'-0" x 8"
 Normal Weight Concrete

Section Properties

	Untopped	Topped
A =	215 in. ²	—
I =	1666 in. ⁴	3071 in. ⁴
Y _b =	4.00 in.	5.29 in.
Y _t =	4.00 in.	4.71 in.
Z _b =	416 in. ³	580 in. ³
Z _t =	416 in. ³	652 in. ³
b _w =	12.00 in.	12.00 in.
wt =	224 plf	323 plf
	56 psf	81 psf
V/S =	1.92 in.	

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



Capacity of sections of other configurations are similar. For precise values, see local hollow-core manufacturer.

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

$$f'_{ci} = 3500 \text{ psi}$$

Low-relaxation strand

Key

- 269 — Safe superimposed service load, psf
- 0.2 — Estimated camber at erection, in.
- 0.3 — Estimated long-time camber, in.

4HC8

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Designation Code	Span, ft.																																																											
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35																																						
66-S	269	242	209	182	159	139	122	107	94	83	73	64	56	49	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.0	-0.1	-0.2																						
76-S	286	248	216	190	167	147	130	115	102	91	81	72	63	56	49	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.0	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.0	-0.1	-0.2																				
58-S	296	275	249	221	196	175	156	140	125	112	101	91	82	73	66	59	53	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.0	-0.2	-0.4								
68-S	284	266	250	236	213	191	172	155	140	126	114	104	94	85	77	70	63	57	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.4	0.2	0.0	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.2	0.0				
78-S	290	272	256	242	229	215	202	183	166	151	139	125	113	103	94	86	79	72	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.7	0.6	0.5	0.4	0.2	0.0

4HC8 + 2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Designation Code	Span, ft.																																																									
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35																																						
66-S	262	226	197	171	148	125	105	87	72	58	45	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	-0.1	-0.1	-0.2	-0.4	-0.5																								
76-S	270	236	206	181	160	141	120	102	86	72	59	47	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.3	0.2	0.2	0.2	0.1	0.0	-0.1	-0.2	-0.3	-0.4	-0.6																						
58-S	273	242	215	191	170	152	136	121	108	96	84	72	60	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.5	0.5	0.5	0.5	0.4	0.3	0.2	0.1	-0.1	-0.1	-0.2	-0.4	-0.6																				
68-S	293	261	234	209	188	169	152	137	123	111	100	87	75	64	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.4	0.2	0.0	-0.2	-0.4	-0.6																			
78-S	286	271	245	221	199	180	163	148	134	121	110	98	87	76	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.6	0.5	0.3	0.1	-0.1	-0.3

Strength based on strain compatibility; bottom tension limited to $6\sqrt{f'_c}$; see pages 2-3-2-5 for explanation