Strand Pattern Designation

76–S
- S = straight
- Diameter of strand in 16ths
- No. of strand (7)

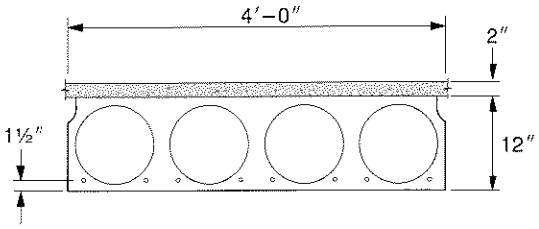
Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

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

Key
127 — Safe superimposed service load, psf
0.3 — Estimated camber at erection, in.
0.4 — Estimated long-time camber, in.

HOLLOW-CORE

4′-0″ x 12″
Normal Weight Concrete



f'_c = 5,000 psi
f'_{ci} = 3,500 psi

Section Properties

		Untopped		Topped	
A	=	262	in²	—	
I	=	4,949	in⁴	7,811	in⁴
y_b	=	6.00	in.	7.55	in.
y_t	=	6.00	in.	6.45	in.
S_b	=	825	in³	1,035	in³
S_t	=	825	in³	1,211	in³
b_w	=	8.00	in.	8.00	in.
wt	=	273	plf	373	plf
		68	psf	93	psf
V/S	=	2.18	in.		

4HC12

Table of safe superimposed service load (psf) and cambers (in.) — No Topping

Strand Designation Code	Span, ft																						
	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
76-S	127	115	104	94	85	76	69	62	56	50	44	39	35										
	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	−0.1	−0.2										
	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.0	−0.1	−0.2	−0.3	−0.5	−0.6										
58-S	173	161	147	134	122	112	102	93	85	78	71	65	59	53	48	43	39	35					
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.0	−0.1	−0.3					
	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.1	−0.1	−0.2	−0.4	−0.6	−0.8	−1.0					
68-S	182	173	165	157	150	143	131	121	111	102	94	87	80	73	67	62	56	52	47				
	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.1				
	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.5	0.3	0.2	0.1	−0.1	−0.3	−0.5				
78-S	188	179	171	163	156	149	145	139	134	126	117	108	100	93	86	79	73	68	62	58	53	49	
	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.5	0.4	0.2	
	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.0	0.9	0.8	0.7	0.5	0.3	0.2	−0.1	−0.3	−0.5	
88-S	194	185	177	169	162	155	148	142	137	131	126	121	120	112	104	97	90	83	78	72	67	62	57
	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.1	1.0	0.9	0.8	0.6
	1.3	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.7	0.5	0.3	0.0

4HC12+2

Table of safe superimposed service load (psf) and cambers (in.) — 2″ Normal Weight Topping

Strand Designation Code	Span, ft																						
	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
76-S	241	215	193	172	155	139	124	111	99	89	79	70	62	55	48	41							
	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	0.1	0.0	0.0							
	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0	−0.1	−0.2	−0.3	−0.4	−0.5	−0.7	−0.8							
58-S	256	240	228	215	202	194	176	160	145	131	119	108	98	88	80	72	64	57	51	44			
	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.1	0.1			
	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.1	0.0	−0.1	−0.2	−0.3	−0.5	−0.7	−0.9	−1.1			
68-S	262	249	234	224	211	200	189	183	173	165	154	141	129	117	107	98	89	81	74	67	60	52	44
	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.2
	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.1	−0.1	−0.2	−0.4	−0.6	−0.8	−1.0	−1.3
78-S	271	255	243	230	217	206	195	189	179	171	163	155	148	144	134	123	113	104	95	87	80	73	65
	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.7	0.7
	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.6	0.5	0.4	0.3	0.1	−0.1	−0.2	−0.5	−0.7
88-S	280	264	249	236	223	212	201	195	185	177	169	161	154	147	141	135	129	126	116	107	99	91	84
	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.1
	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.9	0.8	0.7	0.6	0.4	0.3	0.1	−0.1

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