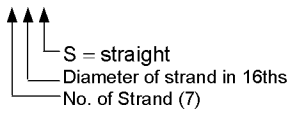


Strand Pattern Designation
76-S



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.

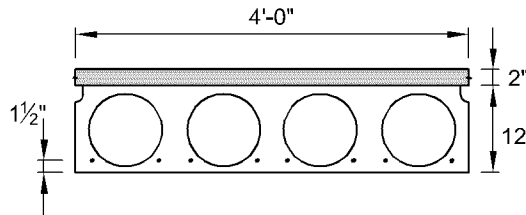
Key

- 258 – 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
 $f_{pu} = 270,000$ psi

Section Properties
Untopped Topped

A =	262 in. ²	358 in. ²
I =	4,949 in. ⁴	7,811 in. ⁴
y_b =	6.00 in.	7.55 in.
y_t =	6.00 in.	6.45 in.
S_b =	825 in. ³	1,035 in. ³
S_t =	825 in. ³	1,211 in. ³
wt =	273 plf	373 plf
DL =	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																																																																																		
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46																																																								
76-S	258	242	228	215	204	194	175	159	144	131	120	109	99	90	82	75	68	62	56	51	46	41	37	33	30	26	0.3	0.3	0.3	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	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.8	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	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	-0.8	-1.0	-1.2	-1.5	-1.7				
	58-S	258	242	228	215	204	194	182	174	167	157	151	143	138	128	118	108	100	92	84	78	71	66	60	55	51	46	42	0.4	0.4	0.4	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	0.0	-0.1	-0.3	-0.4	0.5	0.5	0.5	0.6	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	0.4	0.3	0.2	0.1	-0.1	-0.2	-0.4	-0.6	-0.8	-1.0	-1.2
		68-S	264	248	234	221	210	200	191	180	173	163	157	149	144	137	133	127	121	112	106	98	93	87	81	75	69	64	59	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.1	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	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			273	257	243	230	216	206	197	186	179	169	163	155	150	143	136	133	127	121	115	110	105	98	93	86	82	78	72	0.5	0.6	0.6	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	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.5	0.3
	88-S		282	266	252	236	225	212	203	192	185	175	169	161	153	149	142	136	130	127	121	116	114	107	102	95	91	84	81	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	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	1.1	1.1	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.3	1.2	1.1	1.0	0.8

4HC12 + 2

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping

Strand Designation Code	Span, ft																																																																																		
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46																																																								
76-S	295	276	258	246	232	217	196	177	160	144	131	118	107	96	87	78	71	63	56	50	43	35	28	0.3	0.3	0.3	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	-0.1	-0.2	-0.3	-0.4	0.3	0.3	0.3	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	-1.0	-1.2	-1.4	-1.7														
	58-S	292	273	258	243	229	216	205	195	186	175	167	160	151	139	127	116	106	97	89	81	72	63	55	47	39	32	26	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.0	-0.1	-0.3	-0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	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	-1.3	-1.6	-1.9	-2.2		
		68-S	301	282	264	249	235	222	211	201	192	181	173	166	157	152	144	139	132	127	117	107	98	88	78	69	61	53	46	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	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	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	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	-1.6
78-S			310	291	273	258	244	231	217	207	198	187	179	172	163	158	150	142	138	131	128	122	116	113	102	92	83	74	66	0.5	0.6	0.6	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	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.6	0.6	0.5	0.4	0.3	0.1	-0.1	-0.2	-0.5	-0.7	-0.9	
	88-S		319	300	282	267	250	237	226	213	204	193	185	175	169	161	156	148	141	137	131	125	122	117	111	106	103	94	86	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.1	1.1	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.1	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 is based on strain compatibility; bottom tension is limited to $7.5\sqrt{f'_c}$; see pages 2-7 through 2-10 for explanation.