

HOLLOW-CORE

4'-0" x 12"

Normal Weight Concrete

Section Properties

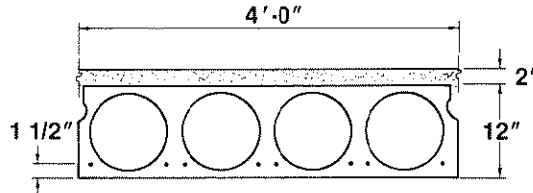
Untopped Topped

A =	262 in. ²	—
I =	4949 in. ⁴	7811 in. ⁴
Y _b =	6.00 in.	7.55 in.
Y _t =	6.00 in.	6.45 in.
Z _b =	825 in. ³	1035 in. ³
Z _t =	825 in. ³	1211 in. ³
b _w =	8.00 in.	8.00 in.
wt =	273 plf	373 plf
	68 psf	93 psf
V/S =	2.18 in.	

Strand Patterns

Producer may vary size and strength of strands. See "explanation of load tables"

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.

$f'_c = 5000$ psi
 $f'_{ci} = 3500$ psi

Key

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

4HC12

Table of safe superimposed service load (psf) and cambers

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	
40-S	124	112	101	91	82	74	67	60	54															
	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0															
50-S	166	152	138	126	115	105	95	87	79	72	66	59	54											
	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.0											
60-S	173	167	159	151	144	134	123	113	104	95	88	80	73	66	60	54	48							
	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.1	0.0							
70-S	179	173	165	157	150	143	136	130	122	113	107	98	90	82	75	69	63	57	51	46				
	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0						
80-S	185	179	171	163	156	149	142	136	131	125	120	112	105	97	91	84	77	71	65	59	54	49	44	
	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.1	

4HC12+2

Table of safe superimposed service load (psf) and cambers

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	
40-S	236	210	188	168	151	135	121	108	96	86	76	67	57	47										
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0										
50-S	247	234	219	209	196	182	165	149	135	122	111	97	85	74	64	55	46							
	0.4	0.4	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	0.2	0.1	0.0						
60-S	256	240	228	215	202	194	183	174	167	157	143	128	114	101	90	79	69	60	51					
	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.3	0.3					
70-S	262	249	234	221	211	200	189	180	173	165	157	149	142	128	115	103	92	82	72	63	55			
	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.5				
80-S	271	255	240	230	217	206	195	186	176	171	163	155	148	141	135	127	115	103	93	83	74	65	57	
	0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.8	0.7	

Bold type — Capacity governed by stresses, others governed by flexural or shear strength