

HOLLOW-CORE

4'-0" x 12"
Lightweight Concrete

Section Properties

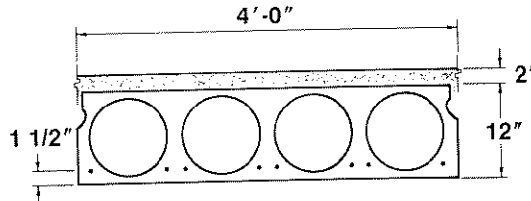
Untopped Topped

A =	262 in. ²	—
I =	4949 in. ⁴	8800 in. ⁴
Y _b =	6.00 in.	8.08 in.
Y _t =	6.00 in.	5.92 in.
Z _b =	825 in. ³	1089 in. ³
Z _t =	825 in. ³	1486 in. ³
b _w =	8.00 in.	8.00 in.
wt =	209 plf	309 plf
	52 psf	77 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

- 137 — Safe superimposed service load, psf
- 0.5 — Estimated camber at erection, in.
- 0.5 — Estimated long-time camber, in.

4LHC12

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	137	125	114	104	95	87	80	73	67	61	56	51	46	42									
	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	0.0									
	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.1	-0.1	-0.2	-0.4	-0.5	-0.7									
50-S	180	165	151	139	128	118	109	100	92	85	79	73	67	62	57	52	47	43					
	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.5	0.4	0.4	0.2	0.1					
	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.5	0.4	0.3	0.1	0.0	-0.2	-0.4	-0.6	-0.9					
60-S	186	177	169	164	157	147	136	126	117	108	99	92	85	78	72	66	61	56	51	47	43		
	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.4		
	1.2	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.0	0.9	0.8	0.7	0.5	0.4	0.2	-0.1	-0.3	-0.6	-0.9		
70-S	192	183	175	167	163	156	149	140	135	126	118	109	101	94	87	81	75	69	64	59	54	50	46
	1.2	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.2	1.1	1.0	0.8
	1.5	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.5	1.4	1.3	1.1	1.0	0.8	0.6	0.4	0.1	-0.2	-0.5
80-S	198	189	181	173	166	159	152	149	144	135	130	122	115	107	102	95	88	82	76	71	66	61	57
	1.5	1.6	1.6	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	1.8	1.7	1.6
	1.9	1.9	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.0	1.9	1.8	1.6	1.5	1.3	1.1	0.8

4LHC12 + 2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Designation Code	Span, ft.																						
	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
40-S	201	181	164	148	134	121	110	99	89	81	73	65	58	49									
	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									
	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.0	-0.1	-0.2	-0.4	-0.5	-0.7	-0.9									
50-S	232	219	210	196	178	163	148	135	124	113	103	94	83	74	65	57							
	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.6							
	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.3	0.2	0.1	0.0	-0.2	-0.3	-0.5	-0.8							
60-S	238	225	216	204	197	187	177	169	157	144	133	121	109	98	88	79	70	62	54				
	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0	0.9				
	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.6	0.6	0.5	0.3	0.2	0.0	-0.1	-0.4	-0.6	-0.8				
70-S	244	234	222	210	203	193	183	175	167	162	155	148	135	123	111	101	91	82	73	65	58		
	1.1	1.1	1.2	1.2	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.4		
	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.0	0.9	0.9	0.7	0.6	0.5	0.3	0.1	-0.2	-0.4	-0.7		
80-S	253	240	228	216	206	199	189	181	173	165	158	151	148	142	134	123	112	102	92	84	76	68	61
	1.3	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9
	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.3	1.2	1.1	0.9	0.7	0.5	0.3	0.1	-0.2	-0.5

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