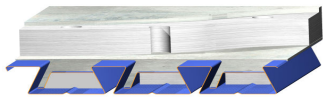


SECTION PROPERTIES fy = 40 ksi

GAGE	Ip (in4)	In (in4)	Sp (in3)	Sn (in3)	Rbe (lb/ft)	Rbi (lb/ft)	Va (lb/ft)
20	1.802	1.746	0.721	0.771	681	1437	3619
18	2.489	2.375	1.042	1.118	1151	2390	6345
16	3.190	2.375	1.414	1.448	1771	3638	8867

45 PCF LIGHTWEIGHT INSULATING CONCRETE

h	5.5"			6.5"			7.5"			8.5"			9.5"			10.5"			
GAGE	20	18	16	20	18	16	20	18	16	20	18	16	20	18	16	20	18	16	
Vc	1.0	1.0	1.0	1.3	1.3	1.3	1.6	1.6	1.6	1.9	1.9	1.9	2.2	2.2	2.2	2.5	2.5	2.5	
Ac	24.0	24.0	24.0	36.0	36.0	36.0	48.0	48.0	48.0	60.0	60.0	60.0	72.0	72.0	72.0	84.0	84.0	84.0	
Wc_wet	12.1	12.1	12.1	15.8	15.8	15.8	19.6	19.6	19.6	23.3	23.3	23.3	27.1	27.1	27.1	30.8	30.8	30.8	
Wc_dry	9.4	9.4	9.4	12.3	12.3	12.3	15.2	15.2	15.2	18.2	18.2	18.2	21.1	21.1	21.1	24.0	24.0	24.0	
L	Load Comb.	DOUBLE SPAN - MAXIMUM ALLOWABLE UNIFORM LIVE LOADS, (psf) - ASD																	
7'-0"	D+L (Strength)	152	259	401	149	256	398	146	253	395	143	251	392	140	248	389	137	245	386
	D+L (Deflection)	855	1165	1487	852	1162	1484	849	1159	1481	846	1156	1478	843	1153	1475	840	1151	1472
7'-6"	D+L (Strength)	141	241	373	138	238	370	135	235	367	132	232	364	129	229	361	126	226	359
	D+L (Deflection)	692	945	1206	690	942	1203	687	939	1200	684	936	1197	681	933	1194	678	930	1191
8'-0"	D+L (Strength)	131	225	347	128	222	344	125	219	341	122	216	338	119	213	335	116	211	332
	D+L (Deflection)	568	776	991	565	773	988	562	770	985	560	767	982	557	764	979	554	761	977
8'-6"	D+L (Strength)	123	211	306	120	208	303	117	205	300	114	202	297	111	199	294	108	197	291
	D+L (Deflection)	472	645	824	469	642	821	466	639	818	463	636	815	460	633	812	457	630	809
9'-0"	D+L (Strength)	115	199	271	112	196	268	109	193	265	106	190	262	103	187	259	100	184	256
	D+L (Deflection)	395	541	692	392	538	689	390	535	686	387	532	683	384	529	680	381	526	677
9'-6"	D+L (Strength)	108	184	242	105	182	239	102	179	236	100	176	233	97	173	230	94	170	227
	D+L (Deflection)	334	458	586	331	455	583	328	452	580	325	449	577	323	446	574	320	443	571
10'-0"	D+L (Strength)	102	165	217	99	162	214	96	159	211	93	156	208	91	153	205	88	151	202
	D+L (Deflection)	285	391	500	282	388	497	279	385	494	276	382	491	273	379	488	270	376	486
10'-6"	D+L (Strength)	97	148	195	94	146	192	91	143	189	88	140	186	85	137	183	82	134	181
	D+L (Deflection)	244	336	430	241	333	427	238	330	424	236	327	421	233	324	418	230	321	415
11'-0"	D+L (Strength)	89	134	176	86	131	174	83	128	171	80	125	168	78	122	165	75	119	162
	D+L (Deflection)	211	290	372	208	287	369	205	284	366	202	281	363	199	278	360	196	275	357
11'-6"	D+L (Strength)	81	121	160	78	119	157	75	116	154	72	113	151	69	110	149	66	107	146
	D+L (Deflection)	183	252	324	180	249	321	177	246	318	174	243	315	171	240	312	168	237	309
12'-0"	D+L (Strength)	73	110	146	70	108	143	67	105	140	64	102	137	61	99	134	58	96	131
	D+L (Deflection)	159	220	283	157	217	280	154	214	277	151	211	274	148	209	271	145	206	269
12'-6"	D+L (Strength)	66	101	133	63	98	130	60	95	127	57	92	125	55	89	122	52	86	119
	D+L (Deflection)	140	193	249	137	190	246	134	187	243	131	184	240	128	182	237	125	179	234
13'-0"	D+L (Strength)	60	92	122	57	89	119	54	86	116	51	83	113	49	80	110	46	77	108
	D+L (Deflection)	123	170	220	120	167	217	117	164	214	114	162	211	111	159	208	108	156	205
13'-6"	D+L (Strength)	55	84	112	52	81	109	49	79	106	46	76	103	43	73	100	40	70	98
	D+L (Deflection)	108	151	194	105	148	191	102	145	189	99	142	186	97	139	183	94	136	180
14'-0"	D+L (Strength)	50	77	103	47	75	100	44	72	97	41	69	94	39	66	92	36	63	89
	D+L (Deflection)	96	134	173	93	131	170	90	128	167	87	125	164	84	122	161	81	119	158
14'-6"	D+L (Strength)	46	71	95	43	68	92	40	65	89	37	63	86	34	60	84	31	57	81
	D+L (Deflection)	85	119	154	82	116	151	79	113	148	76	110	145	73	107	142	70	104	139
15'-0"	D+L (Strength)	42	66	88	39	63	85	36	60	82	33	57	79	30	54	76	27	51	73
	D+L (Deflection)	75	106	138	72	103	135	70	100	132	67	97	129	64	94	126	61	91	123
15'-6"	D+L (Strength)	39	61	81	36	58	79	33	55	76	30	52	73	27	49	70	24	46	67
	D+L (Deflection)	65	91	119	62	88	116	59	85	113	56	83	110	53	80	107	50	77	104
16'-0"	D+L (Strength)	35	56	76	33	53	73	30	50	70	27	47	67	24	44	64	21	42	61
	D+L (Deflection)	55	79	103	52	76	100	50	73	97	47	70	94	44	67	91	41	64	88
16'-6"	D+L (Strength)	33	52	70	30	49	67	27	46	64	24	43	61	21	40	58	18	37	56
	D+L (Deflection)	47	68	89	45	65	86	42	62	83	39	59	81	36	56	78	33	53	75
17'-0"	D+L (Strength)	30	48	65	27	45	62	24	42	59	21	39	56	18	36	54	15	34	51
	D+L (Deflection)	41	59	78	38	56	75	35	53	72	32	50	69	29	47	66	26	44	63
17'-6"	D+L (Strength)	28	45	61	25	42	58	22	39	55	19	36	52	16	33	49	13	30	46
	D+L (Deflection)	35	51	67	32	48	65	29	45	62	26	42	59	23	39	56	20	36	53
18'-0"	D+L (Strength)	25	41	57	22	39	54	19	36	51	17	33	48	14	30	45	11	27	42
	D+L (Deflection)	30	44	59	27	41	56	24	38	53	21	35	50	18	32	47	15	29	44
18'-6"	D+L (Strength)	23	38	53	20	36	50	17	33	47	15	30	44	12	27	41	9	24	38
	D+L (Deflection)	25	38	51	22	35	48	20	32	45	17	29	42	14	26	39	11	23	36
19'-0"	D+L (Strength)	21	36	49	19	33	46	16	30	43	14	27	40	11	24	38	8	21	35
	D+L (Deflection)	22	33	44	19	30	41	16	27	39	14	24	36	11	21	33	8	18	30
19'-6"	D+L (Strength)	20	33	46	17	30	43	14	27	40	12	24	37	9	22	34	6	17	31
	D+L (Deflection)	18	28	38	15	25	36	12	22	33	10	19	30	7	16	27	5	14	24
20'-0"	D+L (Strength)	18	31	43	15	28	40	12	25	37	10	22	34	7	19	31	5	14	28
	D+L (Deflection)	15	24	33	12	21	30	10	18	28	7	15	25	5	12	22	4	11	19
20'-6"	D+L (Strength)	17	29	40	14	26	37	11	23	34	8	20	31	6	17	28	4	12	26
	D+L (Deflection)	15	21	29	12	18	26	10	15	23	7	12	20	5	11	17	4	10	24
21'-0"	D+L (Strength)	17	27	38	13	25	35	10	22	32	8	19	29	6	16	27	4	11	25
	D+L (Deflection)	17	25	35	12	22	32	10	19	29	7	16	26	5	14	25	4	10	23
21'-6"	D+L (Strength)	15	25	35	11	22	32	9	20	30	7	18	28	5	15	25	4	10	22
	D+L (Deflection)	15	21	28	11	18	26	9											



SECTION PROPERTIES fy = 40 ksi

GAGE	Ip (in4)	In (in4)	Sp (in3)	Sn (in3)	Rbe (lb/ft)	Rbi (lb/ft)	Va (lb/ft)
20	1.802	1.746	0.721	0.771	681	1437	3619
18	2.489	2.375	1.042	1.118	1151	2390	6345
16	3.190	2.375	1.414	1.448	1771	3638	8867

45 PCF LIGHTWEIGHT INSULATING CONCRETE

h	11.5"			12.5"			13.5"			14.5"			15.5"			16.5"			
	GAGE	20	18	16	20	18	16	20	18	16	20	18	16	20	18	16	20	18	16
Vc	2.8	2.8	2.8	3.2	3.2	3.2	3.5	3.5	3.5	3.8	3.8	3.8	4.1	4.1	4.1	4.4	4.4	4.4	4.4
Ac	96.0	96.0	96.0	108.0	108.0	108.0	120.0	120.0	120.0	132.0	132.0	132.0	144.0	144.0	144.0	156.0	156.0	156.0	156.0
Wc _{wet}	34.6	34.6	34.6	38.3	38.3	38.3	42.1	42.1	42.1	45.8	45.8	45.8	49.6	49.6	49.6	53.3	53.3	53.3	53.3
Wc _{dry}	26.9	26.9	26.9	29.8	29.8	29.8	32.7	32.7	32.7	35.7	35.7	35.7	38.6	38.6	38.6	41.5	41.5	41.5	41.5
L	DOUBLE SPAN - MAXIMUM ALLOWABLE UNIFORM LIVE LOADS, (psf) - ASD																		
5'-0"	D+L (Strength)	200	351	550	197	348	547	194	345	544	191	342	541	188	339	538	185	336	535
	D+L (Deflection)	2350	3204	4088	2347	3201	4085	2344	3198	4083	2341	3195	4080	2338	3192	4077	2335	3189	4074
5'-6"	D+L (Strength)	179	316	497	176	313	494	173	310	491	170	308	488	167	305	485	164	302	482
	D+L (Deflection)	1758	2399	3064	1755	2396	3061	1752	2393	3058	1749	2391	3055	1746	2388	3052	1743	2385	3049
6'-0"	D+L (Strength)	161	287	453	158	284	450	156	281	447	153	279	444	150	276	441	147	273	438
	D+L (Deflection)	1347	1841	2352	1344	1838	2349	1341	1835	2346	1338	1832	2344	1335	1829	2341	1332	1826	2338
6'-6"	D+L (Strength)	147	263	415	144	260	412	141	257	410	138	254	407	135	251	404	132	248	401
	D+L (Deflection)	1053	1441	1843	1050	1438	1840	1047	1435	1837	1044	1432	1834	1041	1430	1832	1038	1427	1829
7'-0"	D+L (Strength)	134	242	383	131	239	380	128	236	378	125	233	375	122	230	372	119	227	369
	D+L (Deflection)	837	1148	1469	834	1145	1466	831	1142	1463	828	1139	1461	825	1136	1458	823	1133	1455
7'-6"	D+L (Strength)	123	224	356	120	221	353	117	218	350	114	215	347	111	212	344	108	209	341
	D+L (Deflection)	675	927	1189	672	924	1186	669	921	1183	666	918	1180	663	916	1177	660	913	1174
8'-0"	D+L (Strength)	113	208	329	111	205	327	108	202	324	105	199	321	102	196	318	99	193	315
	D+L (Deflection)	551	759	974	548	756	971	545	753	968	542	750	965	539	747	962	536	744	959
8'-6"	D+L (Strength)	105	194	288	102	191	285	99	188	282	96	185	279	93	182	276	90	179	274
	D+L (Deflection)	454	627	806	451	624	803	448	621	800	445	618	798	443	615	795	440	613	792
9'-0"	D+L (Strength)	98	181	253	95	178	251	92	175	248	89	172	245	86	169	242	83	167	239
	D+L (Deflection)	378	523	674	375	520	671	372	518	668	369	515	665	366	512	662	363	509	660
9'-6"	D+L (Strength)	91	167	224	88	164	221	85	161	218	82	158	215	79	155	213	76	152	210
	D+L (Deflection)	317	440	568	314	437	565	311	435	563	308	432	560	305	429	557	302	426	554
10'-0"	D+L (Strength)	85	148	199	82	145	196	79	142	193	76	139	190	73	136	187	70	133	185
	D+L (Deflection)	267	373	483	264	370	480	261	367	477	259	364	474	256	361	471	253	358	468
10'-6"	D+L (Strength)	79	131	178	76	128	175	73	125	172	71	122	169	68	119	166	65	116	163
	D+L (Deflection)	227	318	413	224	315	410	221	312	407	218	309	404	215	306	401	212	303	398
11'-0"	D+L (Strength)	72	117	159	69	114	156	66	111	153	63	108	150	60	105	147	57	102	144
	D+L (Deflection)	193	273	355	190	270	352	187	267	349	185	264	346	182	261	343	179	258	340
11'-6"	D+L (Strength)	63	104	143	60	101	140	57	98	137	54	95	134	51	92	131	48	89	128
	D+L (Deflection)	165	235	306	162	232	303	160	229	300	157	226	297	154	223	295	151	220	292
12'-0"	D+L (Strength)	55	93	128	52	90	125	50	87	123	47	84	120	44	81	117	41	78	114
	D+L (Deflection)	142	203	266	139	200	263	136	197	260	133	194	257	130	191	254	127	188	251
12'-6"	D+L (Strength)	49	83	116	46	80	113	43	77	110	40	74	107	37	72	104	34	69	101
	D+L (Deflection)	122	176	231	119	173	228	116	170	225	113	167	223	110	164	220	107	161	217
13'-0"	D+L (Strength)	43	75	105	40	72	102	37	69	99	34	66	96	31	63	93	28	60	90
	D+L (Deflection)	105	153	202	102	150	199	99	147	196	96	144	193	94	141	190	91	138	187
13'-6"	D+L (Strength)	37	67	95	35	64	92	32	61	89	29	58	86	26	55	83	23	52	80
	D+L (Deflection)	91	133	177	88	130	174	85	127	171	82	124	168	79	121	165	76	118	162
14'-0"	D+L (Strength)	33	60	86	30	57	83	27	54	80	24	51	77	21	48	74	18	45	71
	D+L (Deflection)	78	116	155	75	113	152	72	110	149	69	107	147	67	104	144	64	101	141
14'-6"	D+L (Strength)	28	54	78	25	51	75	23	48	72	20	45	69	17	42	66	14	39	63
	D+L (Deflection)	67	101	137	64	98	134	62	96	131	59	93	128	56	90	125	53	87	122
15'-0"	D+L (Strength)	25	48	70	22	45	68	19	42	65	16	39	62	13	36	59	11	33	56
	D+L (Deflection)	58	89	120	55	86	117	52	83	114	49	80	111	46	77	109	43	74	106
15'-6"	D+L (Strength)	21	43	64	18	40	61	15	37	58	12	34	55	9	31	52	7	29	49
	D+L (Deflection)	47	74	101	44	71	98	41	68	96	38	65	93	35	62	90	32	59	87
16'-0"	D+L (Strength)	18	39	58	15	36	55	12	33	52	9	30	49	6	27	46	4	24	43
	D+L (Deflection)	38	61	85	35	58	83	32	55	80	29	52	77	26	50	74	23	47	71
16'-6"	D+L (Strength)	15	34	53	12	31	50	9	29	47	6	26	44	3	23	41	1	20	38
	D+L (Deflection)	30	51	72	28	48	69	25	45	66	22	42	63	19	39	60	16	36	57
17'-0"	D+L (Strength)	11	31	48	8	28	45	5	25	42	2	22	39	1	19	36	0	16	33
	D+L (Deflection)	41	60	82	38	57	85	35	54	83	32	51	80	29	48	77	26	45	74
17'-6"	D+L (Strength)	7	27	43	5	24	40	3	21	37	1	18	34	0	15	32	0	13	29
	D+L (Deflection)	33	50	70	30	47	68	28	44	66	25	41	64	22	38	62	20	35	60
18'-0"	D+L (Strength)	4	24	39	3	21	36	1	18	33	0	15	30	0	12	27	0	10	24
	D+L (Deflection)	26	41	58	24	38	56	22	35	54	19	32	52	17	29	50	15	27	47
18'-6"	D+L (Strength)	2	21	35	1	18	32	0	15	29	0	12	26	0	9	24	0	7	21
	D+L (Deflection)	20	34	50	18	31	48	15	28	46	13	25	44	11	22	42	9	19	39
19'-0"	D+L (Strength)	1	18	32	0	15	29	0	12	26	0	9	23	0	6	21	0	4	18
	D+L (Deflection)	15	27	40	13	24	36	11	21	33	9	18	25	7	15	22	5	12	15
19'-6"	D+L (Strength)	0	15	28	0	12	26	0	9	23	0</								