

Safe Load Table

8" x 16" flexicore SECTION

MAXIMUM SAFE SUPERIMPOSED* UNIFORMLY DISTRIBUTED WORKING LOADS IN POUNDS PER SQUARE FOOT OF AREA

STD. DESIGNATION	TENSILE STEEL AREA Sq. In.	SIMPLE SLAB SPANS IN FEET AND INCHES																																						
		10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	22'-0"	23'-0"	24'-0"	25'-0"	26'-0"	27'-0"	28'-0"	29'-0"	30'-0"																		
W 148	1.485	DO NOT																																						
W 141	1.408	EXTRAPOLATE																																						
W 136	1.356	VALUES																																						
W 123	1.227			558	506	460	420	384	353	324	298	274	254	235	217	202	187	174	161	150	140	130	121	113	105	98	92	86	80	75	70	65	61	56	52	48	45	41	38	35
W 111	1.111	616	553	500	452	411	374	341	313	287	263	243	224	206	191	176	163	151	140	130	121	112	104	96	89	83	77	71	65	60	56	51	47	43	40	36	33			
W 104**	1.037	574	515	464	420	381	347	317	290	265	244	224	206	190	176	162	150	138	128	118	110	102	94	87	80	74	68	63	58	53	49	45	41	37	34					
W 99	0.994	530	494	445	403	365	332	303	277	253	233	213	196	181	167	154	142	131	121	102	104	96	88	81	75	69	64	59	54	49	45	41	37	33						
W 92	0.920	508	455	410	370	335	305	278	253	232	213	194	179	164	151	139	128	118	109	100	92	85	78	72	66	60	55	51	46	42	38	34								
W 88**	0.884	486	435	392	354	320	291	264	241	220	202	185	170	156	143	132	121	111	102	94	87	79	73	67	61	56	51	46	42	38	34									
W 86	0.862	472	423	381	344	310	281	256	234	213	194	178	164	150	138	127	117	107	98	90	83	76	70	64	58	53	48	44	40	35										
W 80	0.804	438	391	351	318	287	260	236	215	196	179	164	150	137	126	115	105	96	88	81	74	67	61	56	51	46	41	37	33											
W 75	0.746	406	363	326	294	265	240	217	198	180	164	149	136	124	114	104	95	86	79	72	66	60	54	49	44	39	35	31												
W 74**	0.742	403	359	323	291	262	237	215	196	178	162	148	135	123	113	103	94	85	78	71	65	59	53	48	43	39	34													
W 69	0.693	373	334	298	269	242	219	198	180	163	148	135	123	111	101	92	84	76	69	63	57	51	46	41	36	32														
W 64	0.641	340	303	271	244	219	198	178	161	146	132	120	109	98	89	81	73	66	59	54	48	43	38	32	29															
W 61**	0.614	325	289	259	232	208	188	169	153	138	125	113	103	93	84	76	68	61	55	49	44	39	35	30																
W 59	0.589	310	276	247	221	198	178	160	145	131	118	106	96	87	78	71	63	57	51	45	40	35	31																	
W 54	0.543	282	251	223	200	178	160	144	130	116	105	94	85	76	68	61	54	48	43	37	33																			
W 50**	0.497	255	226	201	180	160	143	128	115	103	92	82	73	65	58	51	45	40	35	30																				
W 45	0.451	226	200	177	158	140	125	111	99	88	78	69	61	54	48	42	36	31																						
W 41	0.411	202	179	157	139	123	109	97	86	75	67	59	52	45	39	33	28																							
W 39**	0.393	190	167	147	130	114	101	89	79	69	61	53	47	40	34	29																								
W 37	0.371	177	156	136	120	106	93	82	72	63	55	47	41	35	29																									
W 33	0.332	153	134	117	102	89	78	68	59	51	44	37	31	26																										
W 30**	0.301	135	117	102	88	77	66	57	49	41	34	28																												
W 22**	0.221	84	71	60	50	41	33	27																																

→ FOR ROOF SLABS ONLY

*INCLUDES THE LIVE LOAD PLUS ANY DEAD LOAD THAT IS ADDITIONAL TO THE WEIGHT OF THE BARE GROUTED SLABS IN PLACE.

REMARKS

- Safe loads for greater steel content must not be extrapolated. A balanced slab has 1.705 sq. in. of steel for ACI Code allowables of 20,000 - 1688 - 8.
- Safe superimposed $W = \frac{6M}{L^2} - 56.3$ (W in lb. per sq. ft. of floor area.)
- The maximum span without stirrups = $\frac{2640}{W_{D+L}}$. With stirrups used it is $\frac{7040}{W_{D+L}}$.
- Table is based on dead load plus grout of 75 plf.
- Stirrups are needed for all loadings indicated in light figures above the heavy stepped dashed line.
- The safe loads shown in shaded area produce deflection in excess of 1/360 of the span.
- The above tabulated load contemplate a depth, d, to the centroid of the steel of 6.75 in.
- Minimum total wall thickness (b') = 3.22 in.
- Load computations are in accordance with 1956 ACI 318 Code.
- ** Indicates slabs with 2 rods for tensile steel.

THE FLEXICORE CO., INC.
Dayton, Ohio

February 15, 1958