

Composite Design Safe Load Table

flexicore[®]

PRESTRESSED CONCRETE SLAB

See instructions on back side of sheet for using this table.

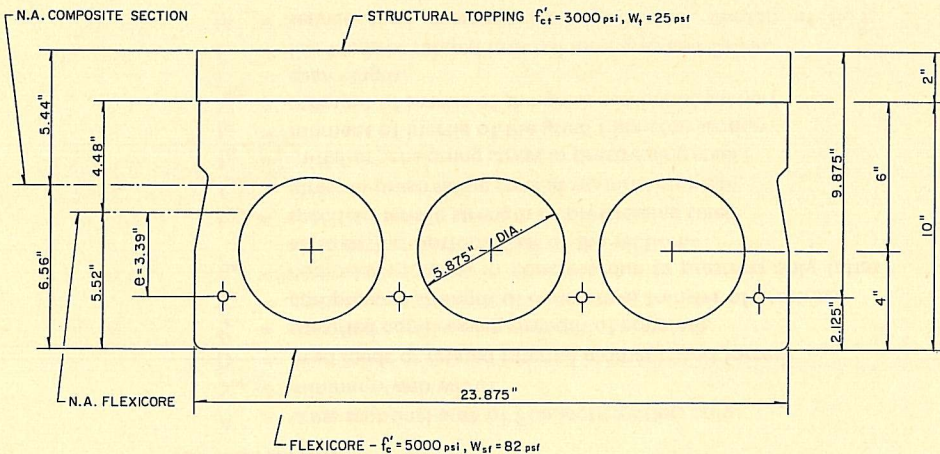
**10" x 24" SECTION PLUS
2" STRUCTURAL TOPPING**

UNIFORMLY DISTRIBUTED SUPERIMPOSED* LOAD IN PSF

Standard Designation	Strands No. & Size	Strand Area Sq. In.	M in Ft.-Kips per Unit	ϕM_n in Ft.-Kips per Unit	Span Length (ℓ) in Ft.																
					20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
T1024G-D58	4-1/2	0.576	59.34	89.78	367	346	326	303	273	241	213	187	164	144	125	108	93	79	67	55	45
T1024G-D50	2-1/2 & 2-7/16	0.504	53.67	80.32	358	337	302	267	234	205	179	156	135	117	100	85	71	59	47		
T1024G-D43	4-7/16	0.432	48.01	70.39	326	287	254	224	195	169	146	125	106	90	75	61	49				
T1024G-D38	2-7/16 & 2-3/8	0.376	43.61	62.31	278	244	215	189	164	141	119	101	84	69	55	43					
T1024G-D32	4-3/8	0.320	39.20	53.90	229	199	174	152	132	112	93	77	61	48							
T1024G-D29	2-1/2	0.288	36.69	48.96	200	173	150	130	112	96	79	63	49								
T1024G-D28	2-3/8 & 2-5/16	0.276	35.74	47.08	189	163	141	121	104	89	73	58	44								

*TABULATED LOADS ARE BASED ON $U = 1.4D + 1.7L$ AND WITH ALL LOAD SUPERIMPOSED ON THE STRUCTURAL SECTION CONSIDERED AS LIVE LOAD. (ALSO SEE NOTE 6)

PHYSICAL PROPERTIES OF STRUCTURAL SECTION AND SPECIFICATIONS



$$A = 157.4 \text{ in.}^2 \quad I_g = 1690.8 \text{ in.}^4 \quad f'_c = 5000 \text{ psi} \quad f_{pu} = 250 \text{ ksi}$$

$$b_w = 6.25 \text{ in.} \quad I_{gc} = 2604.2 \text{ in.}^4 \quad f'_{ci} = 3500 \text{ psi} \quad f_{si} = 175 \text{ ksi}$$

NOTES:

1. Grouted weight of structural unit is 107 psf or 214 plf based on concrete unit weight of 150 pcf.
2. Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI 318-77)."
3. For spans in shaded area consult your local manufacturer.
4. No shear reinforcement is required for the tabulated loads.
5. Tabulated loads to the left of solid stepped line are controlled by shear strength of the concrete. Shear reinforcement may be added to increase the safe loads.
6. Tabulated loads to the right of dashed stepped line are controlled by permissible flexural tension at service loads.
7. For longer spans and conditions not covered in the load table, consult your local manufacturer.