

# Composite Design Safe Load Table

# hi-stress flexicore®

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

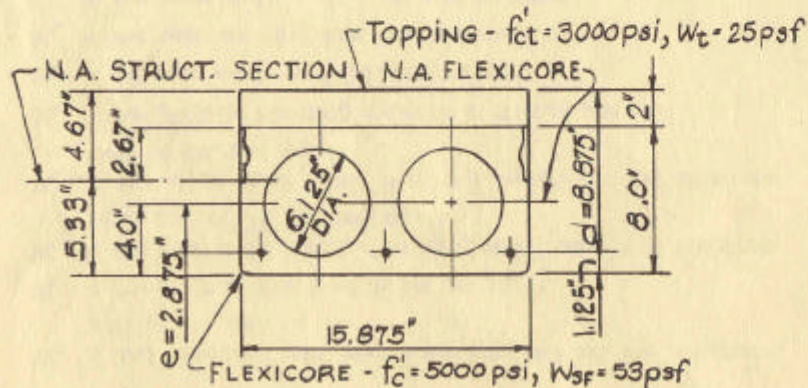
## 8" x 16" SECTION PLUS 2" STRUCTURAL TOPPING

UNIFORMLY DISTRIBUTED SUPERIMPOSED\* LOAD IN LBS. PER SQ. FT.

Standard Designation	Combination of 7-Wire Strand	Strand Area Sq. In.	$M_U$ in Ft.-Kips per Unit	SIMPLE SPAN IN FEET — CENTER TO CENTER OF END BEARINGS																			$V_{AU}$ (CW) in Lbs. per Unit	$M''_{Cr}$ in Ft. Lbs. per Unit
				14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
T816B-A33	3—7/16	.3267	43.97	437	403	374	348	325	305	286	267	238	212	189	170	152	136	122	109	98	85	73	8437	31011
T816B-A30	2—7/16 & 1—3/8	.2977	40.82	430	397	368	342	320	299	275	244	216	192	171	153	136	122	109	97	86	74	63	8319	29277
T816B-A27	1—7/16 & 2—3/8	.2687	37.55	422	390	361	336	314	282	248	219	194	172	152	135	120	107	95	84	74	63	52	8193	27450
T816B-A24	3—3/8	.2397	34.13	427	394	366	329	286	250	219	193	170	150	133	117	103	91	80	70	61	51	41	8277	25513
T816B-A22	2—7/16	.2178	31.46	408	377	345	298	259	225	197	173	152	133	117	103	90	79	69	60	52	42	32	7962	24060
T816B-A16	2—3/8	.1598	23.97	343	290	247	211	182	156	135	116	100	86	74	63	53	45	37	30				7824	19874

\* TABULATED LOADS ARE BASED ON  $M_U = 1.5 M_D + 1.8 M_L$  AND WITH ALL LOAD SUPERIMPOSED ON THE STRUCTURAL SECTION CONSIDERED AS LIVE LOAD. \* \*

### PHYSICAL PROPERTIES OF STRUCTURAL SECTION AND SPECIFICATIONS



$A = 68.0 \text{ in.}^2$	$b = 3.625 \text{ in.}$	$f'_{cr} = 3000 \text{ psi}$
$f'_{ci} = 3500 \text{ psi}$	$I_s = 539.1 \text{ in.}^4$	$I_{cs} = 999.1 \text{ in.}^4$
$f'_c = 5000 \text{ psi}$	$\phi_s = 0.85$	$V_A = 1364 \text{ lbs.}$
$f_{sr} = 175.0 \text{ ksi}$	$V_{ci} \text{ min} = 3867 \text{ lbs.}$	$V_{HS} = 7021 \text{ lbs.}$
$f'_s = 250.0 \text{ ksi}$	$\phi_s V_{ci} \text{ min} = 3287 \text{ lbs.}$	$V_{HU} = 13,340 \text{ lbs.}$

Grouted weight of structural unit is 78 lbs. per sq. ft. or 104 lbs. per lin. ft.  
 Design is based on ACI 318-63 building code requirements for reinforced concrete.  
 NOTE — For longer spans, heavier loads or special conditions consult your local manufacturer.