



**MID-STATES**  
CONCRETE INDUSTRIES

500 South Park Avenue

South Beloit, IL 61080

800.236.1072

msprecast.com

## **10" X 48" HOLLOW CORE**

**(2 HOUR FIRE RATING)**

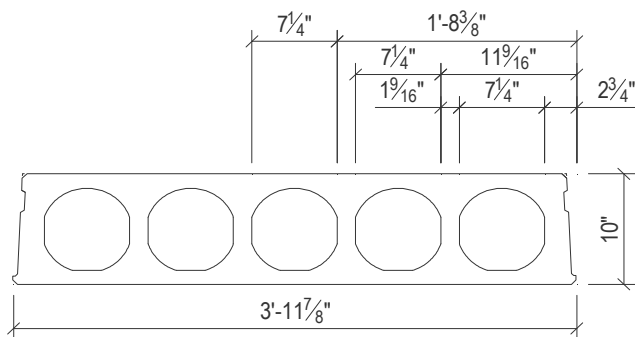
**SAFE LOAD TABLE**

Standard Designation	#/Size of 7-Wire strand	Strand Area Sq.In.	Mu in Ft.-Kips per unit	SIMPLE SPAN IN FEET-CENTER TO CENTER OF END BEARINGS																																			
				10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
1.75-108	10-1/2	1.530	218.46	608	548	498	456	419	388	360	336	314	295	277	261	247	234	222	211	201	191	183	174	167	160	153	147	141	135	130	125	120	110	101					
1.75-28410	2-1/2,4-.6	1.174	172.63	608	548	480	422	375	335	302	273	249	227	208	192	247	234	222	211	201	191	183	174	167	160	152	139	127	116	105	96	87	79	72					
1.75-68	6-1/2	0.918	137.87	546	468	407	358	317	284	255	230	209	227	208	192	247	234	222	211	201	182	164	148	134	120	109	98	88	79	71									

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

(Includes the live load plus dead load that is in addition to the weight of the grouted slabs in place.)

### **FOR LOADS & SPANS NOT SHOWN CONTACT MID-STATES CONCRETE INDUSTRIES**



HOLLOW CORE: F'c = 9000 psi, WEIGHT = 72 psf

- 1- Dead Load, 72 psf grouted weight of structural unit.
- 2- Tabulated loads are based on ACI318-14 where  $M_u = 1.2 M_d + 1.6 M_L$  and with all loads superimposed on the structural section considered as live load.
- 3- Camber is a result of the design rather than a design requirement. Heavy superimposed loads & / or long spans may cause excessive camber. Contact Mid-States Concrete Industries for more specific camber information.
- 4- Shaded blue values are governed by shear.
- 5- Shaded red values governed by M<sub>cr</sub> criteria at partially developed strands.
- 6- Shaded yellow values governed by flexural tension at service loads.
- 7- All strand stresses to 65% of ultimate.



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## **10" X 48" HOLLOW CORE**

(3 HOUR FIRE RATING) see note 7

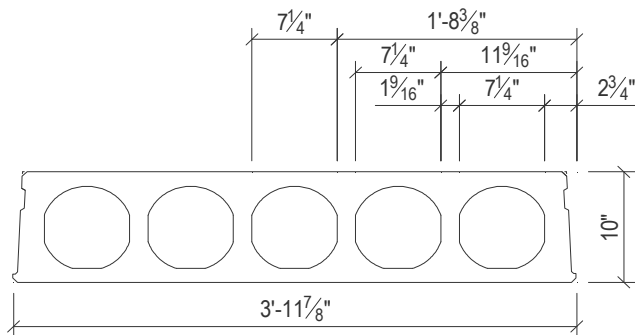
**SAFE LOAD TABLE**

Standard Designation	#/Size of 7-Wire strand	Strand Area Sq.In.	Mu in Ft.-Kips per unit	SIMPLE SPAN IN FEET-CENTER TO CENTER OF END BEARINGS																																							
				10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40									
1.75-108	10-1/2	1.530	218.46	608	548	498	456	419	388	360	336	314	295	277	261	247	234	222	211	201	191	183	174	164	149	135	123	111	101	92	83	75	67	60									
1.75-28410	2-1/2,4-.6	1.174	172.63	608	548	480	422	375	335	302	273	249	227	208	192	247	234	214	191	171	154	138	124	111	99	89	79	70	62	55	48	42											
1.75-68	6-1/2	0.918	137.87	546	468	407	358	317	284	255	230	209	227	208	192	196	173	153	136	120	106	94	82	72	63	55	47	40															

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

(Includes the live load plus dead load that is in addition to the weight of the grouted slabs in place.)

### **FOR LOADS & SPANS NOT SHOWN CONTACT MID-STATES CONCRETE INDUSTRIES**



HOLLOW CORE: F'c = 9000 psi, WEIGHT = 72 psf

- 1- Dead Load, 72 psf grouted weight of structural unit.
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- 3- Camber is a result of the design rather than a design requirement. Heavy superimposed loads & / or long spans may cause excessive camber. Contact Mid-States Concrete Industries for more specific camber information.
- 4- Shaded blue values are governed by shear.
- 5- Shaded red values governed by M<sub>cr</sub> criteria at partially developed strands.
- 6- All strand stresses to 65% of ultimate.
- 7- Plank needs cementitious topping for 3 hr. heat transmission to be met.



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## **10" X 48" HOLLOW CORE**

**(4 HOUR FIRE RATING) see note 7**

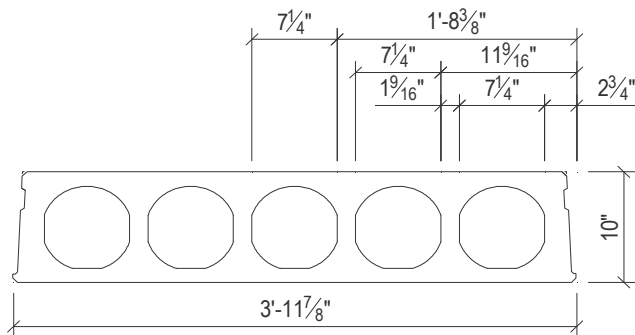
**SAFE LOAD TABLE**

Standard Designation	#/Size of 7-Wire strand	Strand Area Sq.In.	Mu in Ft.-Kips per unit	SIMPLE SPAN IN FEET-CENTER TO CENTER OF END BEARINGS																																
				10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
1.75-108	10-1/2	1.530	218.46	608	548	498	456	419	388	360	336	314	295	277	261	247	234	217	195	175	157	141	126	113	102	91	81	72	64	57	50	43				
1.75-28410	2-1/2,4-.6	1.174	172.63	608	548	480	422	375	335	302	273	249	227	208	192	195	172	152	135	119	105	93	82	71	62	54	47	40								
1.75-68	6-1/2	0.918	137.87	546	468	407	358	317	284	255	230	209	210	182	158	138	120	104	91	78	67	58	49	41												

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

(Includes the live load plus dead load that is in addition to the weight of the grouted slabs in place.)

### **FOR LOADS & SPANS NOT SHOWN CONTACT MID-STATES CONCRETE INDUSTRIES**



HOLLOW CORE: F'c = 9000 psi, WEIGHT = 72 psf

- 1- Dead Load, 72 psf grouted weight of structural unit.
- 2- Tabulated loads are based on ACI318-14 where  $M_u = 1.2 M_d + 1.6 M_L$  and with all loads superimposed on the structural section considered as live load.
- 3- Camber is a result of the design rather than a design requirement. Heavy superimposed loads & / or long spans may cause excessive camber. Contact Mid-States Concrete Industries for more specific camber information.
- 4- Shaded blue values are governed by shear.
- 5- Shaded red values governed by M<sub>cr</sub> criteria at partially developed strands.
- 6- All strand stresses to 65% of ultimate.
- 7- Plank needs cementitious topping for 4 hr. heat transmission to be met.



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## **10" X 48" HOLLOW CORE**

**2" STRUCTURAL TOPPING**

**(2 HOUR FIRE RATING)**

**COMPOSITE DESIGN**

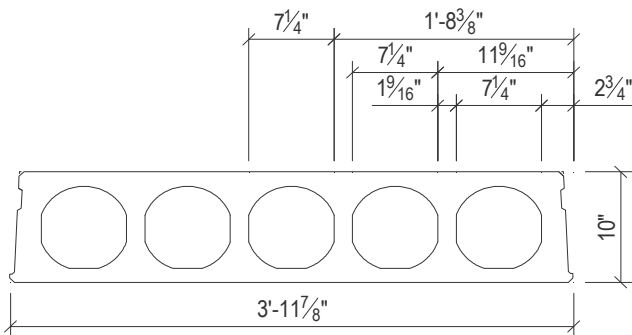
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1.75-108	10-1/2	1.530	254.02	755	680	617	564	519	479	445	414	387	363	341	322	304	287	272	258	246	234	223	213	203	194	186	178	171	164	149	134	121	109	97					
1.75-28410	2-1/2,4-.6	1.174	204.16	755	666	577	507	448	400	359	324	294	268	245	225	304	287	272	258	246	234	223	213	201	180	162	145	129	115	102	90	79	69	59					
1.75-68	6-1/2	0.918	165.05	600	512	445	390	346	308	276	275	249	268	245	225	304	287	272	257	232	210	190	171	152	135	119	105	91	79	68	58	49	40						

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

(Includes the live load plus dead load that is in addition to the weight of the grouted slabs in place and 2" topping.)

### **FOR LOADS & SPANS NOT SHOWN CONTACT MID-STATES CONCRETE INDUSTRIES**



HOLLOW CORE: F'c = 9000 psi, WEIGHT = 72 psf

TOPPING: F'c = 4000 psi, WEIGHT = 25 psf

- 1- Dead Load, 97 psf grouted weight of structural unit.
- 2- Tabulated loads are based on ACI318-14 where  $M_u = 1.2 M_d + 1.6 M_L$  and with all loads superimposed on the structural section considered as live load.
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- 7- All strand stresses to 65% of ultimate.





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## **10" X 48" HOLLOW CORE**

**2" STRUCTURAL TOPPING**

**(3 HOUR FIRE RATING)**

**COMPOSITE DESIGN**

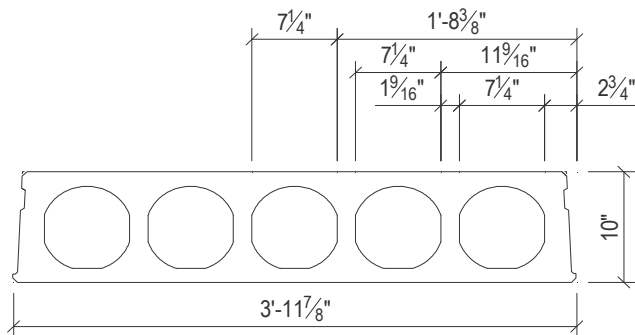
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1.75-28410	2-1/2,4-.6	1.174	204.16	755	666	577	507	448	400	359	324	294	268	245	225	304	283	252	225	201	179	160	142	127	112	99	88	77	67	58	50	42				
1.75-68	6-1/2	0.918	165.05	600	512	445	390	346	308	276	275	249	268	245	225	232	204	180	158	139	122	106	93	80	69	59	49	41								

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

(Includes the live load plus dead load that is in addition to the weight of the grouted slabs in place and 2" topping.)

### **FOR LOADS & SPANS NOT SHOWN CONTACT MID-STATES CONCRETE INDUSTRIES**



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