



# S606 Loading Tables

S606  
Material Specification  
Specific Gravity: 1.36 ± 0.02  
Volume Solids: 68% ± 2%



## Columns and Beams

	30 Minutes Fire Resistance				60 Minutes Fire Resistance				90 Minutes Fire Resistance				120 Minutes Fire Resistance			
	Hp/A	WFT	DFT	g/m <sup>2</sup>	Hp/A	WFT	DFT	g/m <sup>2</sup>	Hp/A	WFT	DFT	g/m <sup>2</sup>	Hp/A	WFT	DFT	g/m <sup>2</sup>
	4 Sided Universal Beams & Columns	0-320	0.38	0.26	525	0-40	0.53	0.36	725	0-40	1.21	0.82	1650	0-40	1.85	1.26
					41-60	0.74	0.50	1010	41-60	1.50	1.02	2055	41-60	2.38	1.62	3265
					61-80	0.96	0.65	1310	61-80	1.79	1.22	2460	61-80	2.91	1.98	3990
					81-100	1.16	0.79	1590	81-100	2.13	1.45	2920	81-100	3.54	2.41	4855
					101-120	1.37	0.93	1875	101-120	2.56	1.74	3505	101-120	4.34	2.95	5945
					121-140	1.57	1.07	2155	121-140	2.97	2.02	4070	121-140	5.13	3.49	7030
					141-160	1.75	1.19	2400	141-160	3.34	2.27	4575	141-160	5.66	3.85	7760
					161-180	1.91	1.30	2620	161-180	3.69	2.51	5060	161-180	6.12	4.16	8380
					181-200	2.07	1.41	2840	181-200	4.04	2.75	5540	181-200	6.60	4.49	9045
					201-220	2.24	1.52	3060	201-220	4.34	2.95	5945	201-220	7.49	5.09*	10255
					221-240	2.38	1.62	3265	221-240	4.65	3.16	6370	221-240	8.38	5.70*	11485
					241-260	2.54	1.73	3485	241-260	4.94	3.36	6770	241-250	8.82	6.00*	12090
					261-280	2.69	1.83	3690	261-280	5.25	3.57	7195	251-255	9.04	6.15*	12390
					281-300	2.84	1.93	3890	281-300	5.54	3.77	7600	256-260	9.26	6.30*	12695
					301-320	3.00	2.04	4110	301-320	5.85	3.98	8020	261-265	9.49	6.45*	12995
													266-270	9.71	6.60*	13300

## Columns

	30 Minutes Fire Resistance				60 Minutes Fire Resistance				90 Minutes Fire Resistance				120 Minutes Fire Resistance				
	Hp/A	WFT	DFT	g/m <sup>2</sup>	Hp/A	WFT	DFT	g/m <sup>2</sup>	Hp/A	WFT	DFT	g/m <sup>2</sup>	Hp/A	WFT	DFT	g/m <sup>2</sup>	
	Circular Hollow	0-280	0.70	0.48	965	0-100	1.34	0.91	1835	0-100	2.21	1.50	3025	0-50	3.5	2.38	4795
281-285		0.79	0.54	1090	101-120	1.84	1.25	2520	101-105	2.62	1.78	3585	51-55	3.81	2.59	5220	
286-290		0.88	0.60	1210	121-140	2.34	1.59	3205	106-110	3.01	2.05	4130	56-60	4.12	2.8	5640	
291-295		0.97	0.66	1330	141-160	2.85	1.94	3910	111-115	3.43	2.33	4695	61-65	4.43	3.01	6065	
296-300		1.06	0.72	1450	161-180	3.35	2.28	4595	116-120	3.84	2.61	5260	66-70	4.74	3.22	6490	
					181-200	3.84	2.61	5260	121-125	4.23	2.88	5805	71-75	5.04	3.43	6910	
					201-220	4.31	2.93	5905	126-130	4.65	3.16	6370	76-80	5.35	3.64	7335	
					221-240	4.78	3.25	6550	131-135	5.06	3.44	6930	81-85	5.66	3.85	7755	
					241-260	5.23	3.56	7175	136-140	5.46	3.71	7475	86-90	5.97	4.06	8180	
					261-280	5.71	3.88	7820	141-145	5.87	3.99	8040	91-95	6.28	4.27	8605	
					281-300	6.18	4.20	8465	146-150	6.28	4.27	8605	96-100	6.59	4.48	9025	
					301-315	6.51	4.43	8925									
4 Sided RHS		0-300	0.71	0.48	965	0-90	0.71	0.48	965	0-105	2.41	1.64	3305	0-80	4.53	3.08	6205
						91-100	0.94	0.64	1290	106-115	2.99	2.03	4090	81-90	5.04	3.43	6910
						101-120	1.46	0.99	1995	116-125	3.57	2.43	4895	91-100	5.56	3.78	7615
						121-140	1.99	1.35	2720	126-135	4.16	2.83	5700	101-105	5.82	3.96	7980
					141-160	2.50	1.70	3425	136-145	4.75	3.23	6510	106-110	6.09	4.14	8340	
					161-180	3.01	2.05	4130	146-155	5.32	3.62	7295	111-115	6.34	4.31	8685	
					181-200	3.54	2.41	4855	156-165	5.91	4.02	8100	116-120	6.6	4.49	9045	
					201-220	4.01	2.73	5500	166-175	6.5	4.42	8905					
					221-240	4.44	3.02	6085									
					241-260	4.88	3.32	6690									
					261-300	5.75	3.91	7880									

Notes  
For castellated and cellular beam sections, please refer to our Technical Services Department for design specific calculations.  
In a portal frame where the columns have a "Reasonable degree of fixity" at their bases, the rafters can be protected with a 3-sided beam loading applied on 3 sides.  
\* columns only

15-01-2016 v.2



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## Beams

	30 Minutes Fire Resistance				60 Minutes Fire Resistance				90 Minutes Fire Resistance				120 Minutes Fire Resistance			
	Hp/A	WFT	DFT	g/m <sup>2</sup>	Hp/A	WFT	DFT	g/m <sup>2</sup>	Hp/A	WFT	DFT	g/m <sup>2</sup>	Hp/A	WFT	DFT	g/m <sup>2</sup>
<b>3-Sided Universal Beams</b>	0-320	0.44	0.30	605	0-40	0.46	0.31	625	0-40	0.93	0.63	1270	0-40	1.56	1.06	2135
					41-60	0.60	0.41	825	41-60	1.19	0.81	1630	41-60	1.60	1.09	2195
					61-80	0.75	0.51	1030	61-80	1.46	0.99	1995	61-80	1.66	1.13	2275
					81-100	0.88	0.60	1210	81-100	1.75	1.19	2400	81-100	2.07	1.41	2840
					101-120	1.00	0.69	1390	101-120	2.06	1.40	2820	101-120	3.00	2.04	4110
					121-140	1.16	0.79	1590	121-140	2.38	1.62	3265	121-140	3.94	2.68	5400
					141-160	1.29	0.88	1775	141-160	2.64	1.80	3630	141-160	4.53	3.08	6205
					161-180	1.44	0.98	1975	161-180	2.88	1.96	3950	161-180	5.00	3.40	6850
					181-200	1.59	1.08	2180	181-200	3.13	2.13	4290	181-200	5.47	3.72	7495
					201-220	1.71	1.16	2340	201-220	3.46	2.35	4735	201-220	5.94	4.04	8140
					221-240	1.84	1.25	2520	221-240	3.78	2.57	5180	221-240	6.41	4.36	8785
					241-260	1.97	1.34	2700	241-260	4.10	2.79	5620	241-245	6.53	4.44	8945
					261-280	2.09	1.42	2860	261-280	4.41	3.00	6045	246-250	6.65	4.52	9110
					281-300	2.22	1.51	3045	281-300	4.74	3.22	6490	251-255	6.76	4.60	9270
					301-320	2.34	1.59	3205	301-320	5.06	3.44	6930				
	<b>3 Sided RHS</b>	0-260	0.78	0.53	1068	0-80	0.78	0.53	1068	0-70	2.32	1.58	3184	0-100	6.03	4.1
					81-90	0.93	0.63	1269	71-80	2.54	1.73	3486				
					91-100	1.07	0.73	1471	81-90	2.74	1.86	3748				
					101-110	1.29	0.88	1773	91-100	2.92	1.98	4000				
					111-120	1.51	1.03	2075	101-110	3.41	2.32	4675				
					121-130	1.76	1.20	2418	111-120	3.87	2.63	5300				
					131-140	1.97	1.34	2700	121-130	4.43	3.01	6065				
					141-150	2.22	1.51	3043	131-140	4.97	3.38	6811				
					151-160	2.47	1.68	3385								
					161-170	2.80	1.91	3849								
					171-180	3.13	2.13	4292								
					181-190	3.52	2.39	4816								
					191-200	3.90	2.63	5300								
					201-210	4.07	2.77	5582								
					211-220	4.25	2.89	5823								
					221-230	4.56	3.10	6247								
				231-240	4.68	3.18	6408									
				241-250	4.90	3.33	6710									
				251-260	5.12	3.48	7012									

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