

Southwest Fireproofing Type 5 GP, 5 MD, 7 GP and 7 HD

Design No. J718 - Concrete Floor / Beam Assembly

Minimum Thickness Required on Beam, in.

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Member	W/D	Unrestrained Beam Rating				
		1 Hr	1.5 Hr	2 Hr	3 Hr	4 Hr
W4x13	0.65	0.490	0.700	0.910	1.400	2.030
W5x16	0.65	0.490	0.700	0.910	1.400	2.030
W5x19	0.76	0.450	0.643	0.836	1.287	1.866
W6x9	0.39	0.619	0.884	1.149	1.768	2.563
W6x12	0.51	0.552	0.788	1.025	1.577	2.286
W6x16	0.66	0.486	0.694	0.903	1.389	2.014
W6x20	0.67	0.482	0.689	0.896	1.378	1.998
W6x26	0.82	0.431	0.616	0.801	1.232	1.787
W8x10	0.37	0.631	0.902	1.173	1.804	2.616
W8x13	0.47	0.572	0.818	1.063	1.636	2.371
W8x15	0.54	0.537	0.768	0.998	1.535	2.226
W8x18	0.57	0.524	0.748	0.972	1.496	2.169
W8x21	0.66	0.486	0.694	0.903	1.389	2.014
W8x24	0.69	0.475	0.678	0.882	1.357	1.967
W8x28	0.80	0.438	0.625	0.813	1.250	1.813
W8x31	0.79	0.441	0.629	0.818	1.259	1.826
W8x35	0.88	0.414	0.591	0.769	1.182	1.715
W8x40	1.00	0.383	0.547	0.711	1.094	1.586
W8x48	1.18	0.375	0.492	0.639	0.983	1.426
W8x58	1.41	0.375	0.435	0.566	0.871	1.262
W8x67	1.61	0.375	0.396	0.515	0.792	1.148
W10x12	0.38	0.625	0.893	1.161	1.786	2.589
W10x15	0.48	0.567	0.810	1.053	1.620	2.350
W10x17	0.54	0.537	0.768	0.998	1.535	2.226
W10x19	0.59	0.515	0.735	0.956	1.471	2.132
W10x22	0.59	0.515	0.735	0.956	1.471	2.132
W10x26	0.69	0.475	0.678	0.882	1.357	1.967
W10x30	0.79	0.441	0.629	0.818	1.259	1.826
W10x33	0.77	0.447	0.639	0.830	1.277	1.852
W10x39	0.90	0.408	0.583	0.758	1.167	1.692
W10x46	1.03	0.376	0.537	0.698	1.074	1.557
W10x49	0.99	0.385	0.550	0.715	1.101	1.596
W10x54	1.09	0.375	0.518	0.673	1.036	1.501
W10x60	1.20	0.375	0.486	0.632	0.972	1.410
W10x68	1.36	0.375	0.446	0.580	0.893	1.295
W10x77	1.52	0.375	0.413	0.537	0.825	1.197
W10x88	1.72	0.375	0.377	0.490	0.754	1.094
W10x100	1.93	0.375	0.375	0.450	0.692	1.003
W10x112	2.14	0.375	0.375	0.415	0.639	0.926
W12x14	0.40	0.613	0.875	1.138	1.750	2.538
W12x16	0.45	0.583	0.833	1.083	1.667	2.417
W12x19	0.53	0.542	0.774	1.007	1.549	2.246
W12x22	0.61	0.506	0.723	0.940	1.446	2.097
W12x26	0.60	0.510	0.729	0.948	1.458	2.115
W12x30	0.69	0.475	0.678	0.882	1.357	1.967

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Member	W/D	Unrestrained Beam Rating				
		1 Hr	1.5 Hr	2 Hr	3 Hr	4 Hr
W12x35	0.79	0.441	0.441	0.441	0.629	1.826
W12x40	0.85	0.422	0.422	0.422	0.603	1.750
W12x45	0.95	0.395	0.395	0.395	0.565	1.637
W12x50	1.04	0.375	0.375	0.375	0.534	1.547
W12x53	0.99	0.385	0.385	0.385	0.550	1.596
W12x54	1.04	0.375	0.375	0.375	0.534	1.547
W12x58	1.08	0.375	0.375	0.375	0.521	1.510
W12x65	1.09	0.375	0.375	0.375	0.518	1.501
W12x72	1.20	0.375	0.375	0.375	0.486	1.410
W12x79	1.32	0.375	0.375	0.375	0.456	1.322
W12x87	1.44	0.375	0.375	0.375	0.429	1.244
W12x96	1.57	0.375	0.375	0.375	0.403	1.169
W12x106	1.73	0.375	0.375	0.375	0.376	1.089
W12x120	1.94	0.375	0.375	0.375	0.375	0.999
W12x136	2.17	0.375	0.375	0.375	0.375	0.916
W12x152	2.40	0.375	0.375	0.375	0.375	0.846
W12x170	2.66	0.375	0.375	0.375	0.375	0.778
W12x190	2.93	0.375	0.375	0.375	0.375	0.719
W12x210	3.21	0.375	0.375	0.375	0.375	0.666
W12x230	3.47	0.375	0.375	0.375	0.375	0.623
W12x262	3.76	0.375	0.375	0.375	0.375	0.582
W12x279	4.10	0.375	0.375	0.375	0.375	0.540
W12x305	4.41	0.375	0.375	0.375	0.375	0.506
W12x336	4.78	0.375	0.375	0.375	0.375	0.472
W14x22	0.52	0.547	0.547	0.547	0.781	2.266
W14x26	0.61	0.506	0.506	0.506	0.723	2.097
W14x30	0.63	0.498	0.498	0.498	0.711	2.063
W14x34	0.71	0.468	0.468	0.468	0.668	1.937
W14x38	0.79	0.441	0.441	0.441	0.629	1.826
W14x43	0.85	0.422	0.422	0.422	0.603	1.750
W14x48	0.94	0.398	0.398	0.398	0.568	1.648
W14x53	1.03	0.376	0.376	0.376	0.537	1.557
W14x61	1.07	0.375	0.375	0.375	0.524	1.519
W14x68	1.19	0.375	0.375	0.375	0.489	1.418
W14x74	1.28	0.375	0.375	0.375	0.465	1.350
W14x82	1.41	0.375	0.375	0.375	0.435	1.262
W14x90	1.27	0.375	0.375	0.375	0.468	1.357
W14x99	1.39	0.375	0.375	0.375	0.440	1.275
W14x109	1.53	0.375	0.375	0.375	0.411	1.191
W14x120	1.67	0.375	0.375	0.375	0.385	1.118
W14x132	1.83	0.375	0.375	0.375	0.375	1.044
W14x145	1.94	0.375	0.375	0.375	0.375	0.999
W14x159	2.11	0.375	0.375	0.375	0.375	0.936
W14x176	2.25	0.375	0.375	0.375	0.375	0.890
W14x193	2.32	0.375	0.375	0.375	0.375	0.869

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		1 Hr	1.5 Hr	2 Hr	3 Hr	4 Hr
W14x211	2.74	0.375	0.375	0.375	0.375	0.760
W14x233	3.00	0.375	0.375	0.375	0.375	0.705
W14x257	3.27	0.375	0.375	0.375	0.375	0.656
W14x283	3.57	0.375	0.375	0.375	0.375	0.609
W14x311	3.88	0.375	0.375	0.375	0.375	0.566
W14x342	4.21	0.375	0.375	0.375	0.375	0.528
W14x370	4.51	0.375	0.375	0.375	0.375	0.497
W14x398	4.80	0.375	0.375	0.375	0.375	0.470
W14x426	5.09	0.375	0.375	0.375	0.375	0.446
W14x455	5.38	0.375	0.375	0.375	0.375	0.424
W14x500	5.82	0.375	0.375	0.375	0.375	0.395
W14x550	6.30	0.375	0.375	0.375	0.375	0.375
W14x605	6.80	0.375	0.375	0.375	0.375	0.375
W16x26	0.55	0.533	0.533	0.533	0.761	2.207
W16x31	0.65	0.490	0.490	0.490	0.700	2.030
W16x36	0.69	0.475	0.475	0.475	0.678	1.967
W16x40	0.76	0.450	0.450	0.450	0.643	1.866
W16x45	0.85	0.422	0.422	0.422	0.603	1.750
W16x50	0.94	0.398	0.398	0.398	0.568	1.648
W16x67	1.07	0.375	0.375	0.375	0.524	1.519
W16x77	1.07	0.375	0.375	0.375	0.524	1.519
W16x89	1.22	0.375	0.375	0.375	0.481	1.394
W16x100	1.56	0.375	0.375	0.375	0.405	1.175
W18x35	0.66	0.486	0.486	0.486	0.694	2.014
W18x40	0.76	0.450	0.450	0.450	0.643	1.866
W18x46	0.86	0.420	0.420	0.420	0.599	1.738
W18x50	0.87	0.417	0.417	0.417	0.595	1.726
W18x55	0.95	0.395	0.395	0.395	0.565	1.637
W18x60	1.03	0.376	0.376	0.376	0.537	1.557
W18x65	1.11	0.375	0.375	0.375	0.512	1.484
W18x71	1.21	0.375	0.375	0.375	0.483	1.402
W18x76	1.11	0.375	0.375	0.375	0.512	1.484
W18x88	1.24	0.375	0.375	0.375	0.476	1.379
W18x97	1.39	0.375	0.375	0.375	0.440	1.275
W18x106	1.52	0.375	0.375	0.375	0.413	1.197
W18x119	1.68	0.375	0.375	0.375	0.384	1.113
W21x44	0.73	0.461	0.461	0.461	0.658	1.908
W21x50	0.83	0.428	0.428	0.428	0.612	1.774
W21x57	0.93	0.400	0.400	0.400	0.572	1.658
W21x62	0.94	0.398	0.398	0.398	0.568	1.648
W21x68	1.03	0.376	0.376	0.376	0.537	1.557
W21x83	1.24	0.375	0.375	0.375	0.476	1.379
W21x93	1.38	0.375	0.375	0.375	0.442	1.282
W21x101	1.29	0.375	0.375	0.375	0.463	1.343
W21x111	1.41	0.375	0.375	0.375	0.435	1.262

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Member	W/D	Unrestrained Beam Rating				
		1 Hr	1.5 Hr	2 Hr	3 Hr	4 Hr
W21x122	1.54	0.375	0.375	0.375	0.409	1.186
W21x132	1.66	0.375	0.375	0.375	0.387	1.123
W21x147	1.83	0.375	0.375	0.375	0.375	1.044
W24x55	0.82	0.431	0.431	0.431	0.616	1.787
W24x62	0.92	0.403	0.403	0.403	0.576	1.669
W24x68	0.93	0.400	0.400	0.400	0.572	1.658
W24x76	1.02	0.378	0.378	0.378	0.540	1.566
W24x84	1.13	0.375	0.375	0.375	0.506	1.467
W24x94	1.26	0.375	0.375	0.375	0.470	1.364
W24x104	1.22	0.375	0.375	0.375	0.481	1.394
W24x117	1.36	0.375	0.375	0.375	0.446	1.295
W24x131	1.52	0.375	0.375	0.375	0.413	1.197
W24x146	1.68	0.375	0.375	0.375	0.384	1.113
W24x162	1.85	0.375	0.375	0.375	0.375	1.036
W27x84	1.02	0.378	0.378	0.378	0.540	1.566
W27x94	1.13	0.375	0.375	0.375	0.506	1.467
W27x102	1.23	0.375	0.375	0.375	0.478	1.387
W27x114	1.36	0.375	0.375	0.375	0.446	1.295
W27x146	1.53	0.375	0.375	0.375	0.411	1.191
W27x161	1.68	0.375	0.375	0.375	0.384	1.113
W27x178	1.85	0.375	0.375	0.375	0.375	1.036
W30x99	1.10	0.375	0.375	0.375	0.515	1.493
W30x108	1.20	0.375	0.375	0.375	0.486	1.410
W30x116	1.28	0.375	0.375	0.375	0.465	1.350
W30x124	1.37	0.375	0.375	0.375	0.444	1.288
W30x132	1.46	0.375	0.375	0.375	0.425	1.232
W30x173	1.66	0.375	0.375	0.375	0.387	1.123
W30x191	1.82	0.375	0.375	0.375	0.375	1.049
W30x211	2.00	0.375	0.375	0.375	0.375	0.976
W33x118	1.19	0.375	0.375	0.375	0.489	1.418
W33x130	1.31	0.375	0.375	0.375	0.458	1.329
W33x141	1.41	0.375	0.375	0.375	0.435	1.262
W33x152	1.51	0.375	0.375	0.375	0.415	1.203
W33x201	1.78	0.375	0.375	0.375	0.375	1.066

These beam protection thicknesses have been calculated for the convenience of users, in accordance with "6. Adjustment of Thickness of Spray-applied Fire Resistive Materials for Restrained and Unrestrained Beams", as detailed in the UL FireResistance Directory - Volume 1, 2007, page 9. While we have taken care to be as accurate as possible, we will not be held responsible for errors or omissions. If any discrepancy is found between these tables and the UL Design information, the UL Design information shall govern.

April 16, 2007