

Southwest Fireproofing Type 5 GP, 5 MD, 7 GP and 7 HD
Design No. D788 - Protected Deck Floor Assembly
Lightweight Concrete

Minimum Thickness, in., Required on Beam

Member	W/D	Unrestrained Beam Rating				
		1 Hr	1.5 Hr	2 Hr	3 Hr	4 Hr
W4x13	0.65	0.420	0.630	0.910	1.400	1.820
W5x16	0.65	0.420	0.630	0.910	1.400	1.820
W5x19	0.76	0.386	0.579	0.836	1.287	1.673
W6x9	0.39	0.530	0.795	1.149	1.768	2.298
W6x12	0.51	0.473	0.709	1.025	1.577	2.050
W6x16	0.66	0.417	0.625	0.903	1.389	1.806
W6x20	0.67	0.413	0.620	0.896	1.378	1.791
W6x26	0.82	0.375	0.555	0.801	1.232	1.602
W8x10	0.37	0.541	0.812	1.173	1.804	2.345
W8x13	0.47	0.491	0.736	1.063	1.636	2.126
W8x15	0.54	0.461	0.691	0.998	1.535	1.996
W8x18	0.57	0.449	0.673	0.972	1.496	1.944
W8x21	0.66	0.417	0.625	0.903	1.389	1.806
W8x24	0.69	0.407	0.610	0.882	1.357	1.764
W8x28	0.80	0.375	0.563	0.813	1.250	1.625
W8x31	0.79	0.378	0.567	0.818	1.259	1.637
W8x35	0.88	0.375	0.532	0.769	1.182	1.537
W8x40	1.00	0.375	0.492	0.711	1.094	1.422
W8x48	1.18	0.375	0.442	0.639	0.983	1.278
W8x58	1.41	0.375	0.392	0.566	0.871	1.132
W8x67	1.61	0.375	0.375	0.515	0.792	1.029
W10x12	0.38	0.536	0.804	1.161	1.786	2.321
W10x15	0.48	0.486	0.729	1.053	1.620	2.106
W10x17	0.54	0.461	0.691	0.998	1.535	1.996
W10x19	0.59	0.441	0.662	0.956	1.471	1.912
W10x22	0.59	0.441	0.662	0.956	1.471	1.912
W10x26	0.69	0.407	0.610	0.882	1.357	1.764
W10x30	0.79	0.378	0.567	0.818	1.259	1.637
W10x33	0.77	0.383	0.575	0.830	1.277	1.661
W10x39	0.90	0.375	0.525	0.758	1.167	1.517
W10x46	1.03	0.375	0.483	0.698	1.074	1.396
W10x49	0.99	0.375	0.495	0.715	1.101	1.431
W10x54	1.09	0.375	0.466	0.673	1.036	1.346
W10x60	1.20	0.375	0.438	0.632	0.972	1.264
W10x68	1.36	0.375	0.402	0.580	0.893	1.161
W10x77	1.52	0.375	0.375	0.537	0.825	1.073
W10x88	1.72	0.375	0.375	0.490	0.754	0.981
W10x100	1.93	0.375	0.375	0.450	0.692	0.899
W10x112	2.14	0.375	0.375	0.415	0.639	0.830
W12x14	0.40	0.525	0.788	1.138	1.750	2.275
W12x16	0.45	0.500	0.750	1.083	1.667	2.167
W12x19	0.53	0.465	0.697	1.007	1.549	2.013
W12x22	0.61	0.434	0.651	0.940	1.446	1.880
W12x26	0.60	0.438	0.656	0.948	1.458	1.896

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W12x30	0.69	0.407	0.610	0.882	1.357	1.764
W12x35	0.79	0.378	0.567	0.818	1.259	1.637
W12x40	0.85	0.375	0.543	0.784	1.207	1.569
W12x45	0.95	0.375	0.508	0.734	1.129	1.468
W12x50	1.04	0.375	0.480	0.694	1.067	1.387
W12x53	0.99	0.375	0.495	0.715	1.101	1.431
W12x54	1.04	0.375	0.480	0.694	1.067	1.387
W12x58	1.08	0.375	0.469	0.677	1.042	1.354
W12x65	1.09	0.375	0.466	0.673	1.036	1.346
W12x72	1.20	0.375	0.438	0.632	0.972	1.264
W12x79	1.32	0.375	0.410	0.592	0.911	1.185
W12x87	1.44	0.375	0.386	0.558	0.858	1.115
W12x96	1.57	0.375	0.375	0.524	0.806	1.048
W12x106	1.73	0.375	0.375	0.488	0.751	0.976
W12x120	1.94	0.375	0.375	0.448	0.689	0.896
W12x136	2.17	0.375	0.375	0.411	0.632	0.821
W12x152	2.40	0.375	0.375	0.379	0.583	0.758
W12x170	2.66	0.375	0.375	0.375	0.537	0.698
W12x190	2.93	0.375	0.375	0.375	0.496	0.644
W12x210	3.21	0.375	0.375	0.375	0.459	0.597
W12x230	3.47	0.375	0.375	0.375	0.430	0.559
W12x262	3.76	0.375	0.375	0.375	0.401	0.522
W12x279	4.10	0.375	0.375	0.375	0.375	0.484
W12x305	4.41	0.375	0.375	0.375	0.375	0.454
W12x336	4.78	0.375	0.375	0.375	0.375	0.423
W14x22	0.52	0.469	0.703	1.016	1.563	2.031
W14x26	0.61	0.434	0.651	0.940	1.446	1.880
W14x30	0.63	0.427	0.640	0.925	1.423	1.850
W14x34	0.71	0.401	0.601	0.868	1.336	1.737
W14x38	0.79	0.378	0.567	0.818	1.259	1.637
W14x43	0.85	0.375	0.543	0.784	1.207	1.569
W14x48	0.94	0.375	0.511	0.739	1.136	1.477
W14x53	1.03	0.375	0.483	0.698	1.074	1.396
W14x61	1.07	0.375	0.472	0.681	1.048	1.362
W14x68	1.19	0.375	0.440	0.635	0.978	1.271
W14x74	1.28	0.375	0.419	0.605	0.931	1.210
W14x82	1.41	0.375	0.392	0.566	0.871	1.132
W14x90	1.27	0.375	0.421	0.608	0.936	1.217
W14x99	1.39	0.375	0.396	0.572	0.879	1.143
W14x109	1.53	0.375	0.375	0.534	0.822	1.068
W14x120	1.67	0.375	0.375	0.501	0.771	1.002
W14x132	1.83	0.375	0.375	0.468	0.720	0.936
W14x145	1.94	0.375	0.375	0.448	0.689	0.896
W14x159	2.11	0.375	0.375	0.420	0.646	0.839

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W14x176	2.25	0.375	0.375	0.399	0.614	0.798
W14x193	2.32	0.375	0.375	0.390	0.599	0.779
W14x211	2.74	0.375	0.375	0.375	0.524	0.681
W14x233	3.00	0.375	0.375	0.375	0.486	0.632
W14x257	3.27	0.375	0.375	0.375	0.452	0.588
W14x283	3.57	0.375	0.375	0.375	0.420	0.546
W14x311	3.88	0.375	0.375	0.375	0.391	0.508
W14x342	4.21	0.375	0.375	0.375	0.375	0.473
W14x370	4.51	0.375	0.375	0.375	0.375	0.445
W14x398	4.80	0.375	0.375	0.375	0.375	0.421
W14x426	5.09	0.375	0.375	0.375	0.375	0.400
W14x455	5.38	0.375	0.375	0.375	0.375	0.380
W14x500	5.82	0.375	0.375	0.375	0.375	0.375
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	0.457	0.685	0.989	1.522	1.978
W16x31	0.65	0.420	0.630	0.910	1.400	1.820
W16x36	0.69	0.407	0.610	0.882	1.357	1.764
W16x40	0.76	0.386	0.579	0.836	1.287	1.673
W16x45	0.85	0.375	0.543	0.784	1.207	1.569
W16x50	0.94	0.375	0.511	0.739	1.136	1.477
W16x67	1.07	0.375	0.472	0.681	1.048	1.362
W16x77	1.07	0.375	0.472	0.681	1.048	1.362
W16x89	1.22	0.375	0.433	0.625	0.962	1.250
W16x100	1.56	0.375	0.375	0.527	0.810	1.053
W18x35	0.66	0.417	0.625	0.903	1.389	1.806
W18x40	0.76	0.386	0.579	0.836	1.287	1.673
W18x46	0.86	0.375	0.539	0.779	1.199	1.558
W18x50	0.87	0.375	0.536	0.774	1.190	1.548
W18x55	0.95	0.375	0.508	0.734	1.129	1.468
W18x60	1.03	0.375	0.483	0.698	1.074	1.396
W18x65	1.11	0.375	0.461	0.665	1.023	1.330
W18x71	1.21	0.375	0.435	0.628	0.967	1.257
W18x76	1.11	0.375	0.461	0.665	1.023	1.330
W18x88	1.24	0.375	0.428	0.618	0.951	1.236
W18x97	1.39	0.375	0.396	0.572	0.879	1.143
W18x106	1.52	0.375	0.375	0.537	0.825	1.073
W18x119	1.68	0.375	0.375	0.499	0.768	0.998
W21x44	0.73	0.395	0.592	0.855	1.316	1.711
W21x50	0.83	0.375	0.551	0.795	1.224	1.591
W21x57	0.93	0.375	0.515	0.743	1.144	1.487
W21x62	0.94	0.375	0.511	0.739	1.136	1.477
W21x68	1.03	0.375	0.483	0.698	1.074	1.396
W21x83	1.24	0.375	0.428	0.618	0.951	1.236

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		1 Hr	1.5 Hr	2 Hr	3 Hr	4 Hr
W21x93	1.38	0.375	0.398	0.574	0.884	1.149
W21x101	1.29	0.375	0.417	0.602	0.926	1.204
W21x111	1.41	0.375	0.392	0.566	0.871	1.132
W21x122	1.54	0.375	0.375	0.532	0.818	1.063
W21x132	1.66	0.375	0.375	0.503	0.774	1.007
W21x147	1.83	0.375	0.375	0.468	0.720	0.936
W24x55	0.82	0.375	0.555	0.801	1.232	1.602
W24x62	0.92	0.375	0.518	0.748	1.151	1.497
W24x68	0.93	0.375	0.515	0.743	1.144	1.487
W24x76	1.02	0.375	0.486	0.702	1.080	1.404
W24x84	1.13	0.375	0.455	0.658	1.012	1.315
W24x94	1.26	0.375	0.423	0.612	0.941	1.223
W24x104	1.22	0.375	0.433	0.625	0.962	1.250
W24x117	1.36	0.375	0.402	0.580	0.893	1.161
W24x131	1.52	0.375	0.375	0.537	0.825	1.073
W24x146	1.68	0.375	0.375	0.499	0.768	0.998
W24x162	1.85	0.375	0.375	0.464	0.714	0.929
W27x84	1.02	0.375	0.486	0.702	1.080	1.404
W27x94	1.13	0.375	0.455	0.658	1.012	1.315
W27x102	1.23	0.375	0.430	0.622	0.956	1.243
W27x114	1.36	0.375	0.402	0.580	0.893	1.161
W27x146	1.53	0.375	0.375	0.534	0.822	1.068
W27x161	1.68	0.375	0.375	0.499	0.768	0.998
W27x178	1.85	0.375	0.375	0.464	0.714	0.929
W30x99	1.10	0.375	0.463	0.669	1.029	1.338
W30x108	1.20	0.375	0.438	0.632	0.972	1.264
W30x116	1.28	0.375	0.419	0.605	0.931	1.210
W30x124	1.37	0.375	0.400	0.577	0.888	1.155
W30x132	1.46	0.375	0.382	0.552	0.850	1.104
W30x173	1.66	0.375	0.375	0.503	0.774	1.007
W30x191	1.82	0.375	0.375	0.470	0.723	0.940
W30x211	2.00	0.375	0.375	0.438	0.673	0.875
W33x118	1.19	0.375	0.440	0.635	0.978	1.271
W33x130	1.31	0.375	0.412	0.596	0.916	1.191
W33x141	1.41	0.375	0.392	0.566	0.871	1.132
W33x152	1.51	0.375	0.375	0.539	0.829	1.078
W33x201	1.78	0.375	0.375	0.478	0.735	0.956

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.