

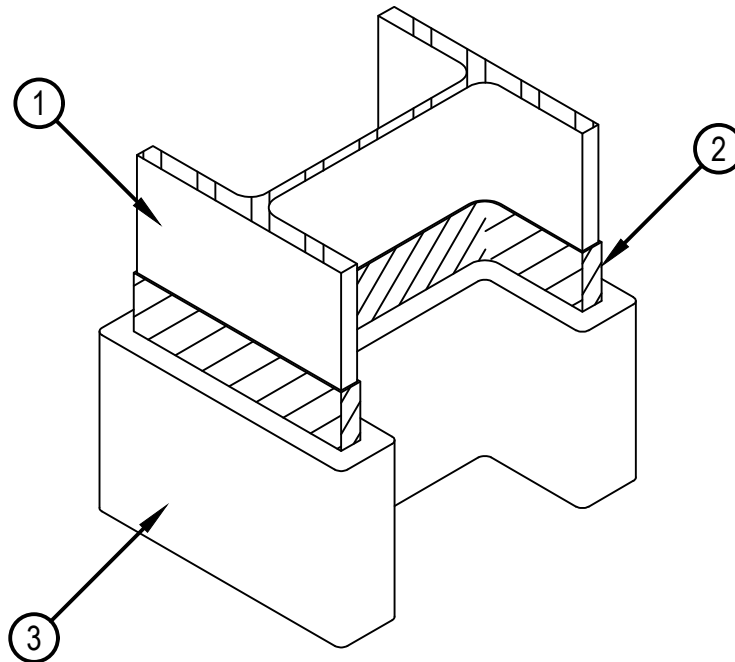


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Underwriters Laboratories, Inc.
to UL 263 and CAN/ULC-S101

Design No. Y633

Ratings - 1, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 4-1/2, 5 and 5-1/2 Hr. (See Item 3)

Y633



1. Steel Column — Wide flange steel columns with the minimum sizes shown in the tables below.
2. Primer Coating — 60 micron (2 mil) thickness of a two component epoxy primer or 60 micron (2 mil) thickness of an alkyd primer or 60 micron (2 mil) thickness of an acrylic primer or 60 micron (2 mil) thickness of a polyurethane primer.
3. Mastic & Intumescent Coating* — Coating spray or brush applied in accordance with the manufacturer's instructions at the minimum average dry thickness shown in the table below. The thickness shown does not include primer thickness.

As an alternate to the table below, the required thickness of coating (in mm) to be applied to surfaces of Wide Flange columns may be determined from the equations listed below.

The equations may only be used for the indicated hourly rating, and for the corresponding listed ranges of thickness (mm) and Hp/A.

Hourly Rating	Thickness Equation (mm)	Thickness Range (mm)	Hp/A Section Factor Range
60 mins	$T = ((0.0086 * Hp/A) + 0.2165)$	0.69 to 3.77	55 - 415
120 mins	$T = ((0.0271 * Hp/A) + 0.1943)$	1.68 to 5.46	55 - 195
120 mins	$T = ((0.0252 * Hp/A) + 0.5433)$	5.58 to 6.21	200 - 225
120 mins	$T = ((0.0174 * Hp/A) + 2.3364)$	6.34 to 9.56	230 - 415

4. Top Coat (not shown) — The following topcoats shall be used for compliance with Exterior Environmental Exposure requirement. Solvent Based 2 pack topcoat Type Hensotop 2K PU applied at a dry film thickness of 100 microns (4 mil) or Acrylic polyurethane topcoat Type Hi Solids Polyurethane 250 applied at a dry film thickness of 100 microns (4 mil) or Waterbased Urethane topcoat Type Acrolon 100HS at a dry film thickness of 100 microns (4 mil).

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Required Thickness (in.)
Rating Period (hr)

Size	W/D	1	1-1/2	2	2-1/2	3	3-1/2	4	4-1/2	5	5-1/2
W8x10	0.33	0.148	0.263	0.376	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W6x9	0.34	0.147	0.260	0.373	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W10x12	0.35	0.143	0.255	0.366	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W12x14	0.36	0.137	0.245	0.352	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W12x16	0.41	0.122	0.222	0.322	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W8x13	0.42	0.120	0.219	0.318	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W10x15	0.43	0.116	0.214	0.311	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W6x15	0.43	0.116	0.214	0.311	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W6x12	0.45	0.110	0.204	0.298	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W10x17	0.48	0.104	0.195	0.285	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W14x22	0.48	0.104	0.195	0.285	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W8x15	0.48	0.104	0.195	0.285	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W12x19	0.49	0.102	0.192	0.281	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W16x26	0.5	0.1	0.189	0.277	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W8x18	0.5	0.1	0.189	0.277	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W10x22	0.52	0.096	0.183	0.270	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W12x26	0.53	0.095	0.181	0.267	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W10x19	0.54	0.093	0.178	0.263	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W5x16	0.55	0.091	0.176	0.260	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W12x22	0.56	0.09	0.174	0.257	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W14X26	0.56	0.09	0.174	0.257	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W14x30	0.56	0.09	0.174	0.257	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W4x13	0.56	0.09	0.174	0.257	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W6x20	0.56	0.09	0.174	0.257	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W6x16	0.58	0.087	0.169	0.251	0.333	0.415	0.496	N/A	N/A	N/A	N/A
W8x21	0.58	0.087	0.169	0.251	0.333	0.415	0.496	N/A	N/A	N/A	N/A
W16x31	0.59	0.086	0.167	0.249	0.331	0.413	0.494	N/A	N/A	N/A	N/A
W8x24	0.59	0.086	0.167	0.249	0.331	0.413	0.494	N/A	N/A	N/A	N/A
W18x35	0.60	0.085	0.165	0.245	0.327	0.409	0.491	N/A	N/A	N/A	N/A
W10x26	0.61	0.083	0.162	0.241	0.323	0.406	0.488	N/A	N/A	N/A	N/A



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W12x30	0.61	0.083	0.162	0.241	0.323	0.406	0.488	N/A	N/A	N/A	N/A
W16x36	0.62	0.082	0.159	0.237	0.319	0.402	0.485	N/A	N/A	N/A	N/A
W14x34	0.63	0.081	0.157	0.234	0.316	0.400	0.483	N/A	N/A	N/A	N/A
W5x19	0.64	0.079	0.155	0.230	0.312	0.396	0.480	N/A	N/A	N/A	N/A
W10x33	0.66	0.077	0.151	0.224	0.306	0.391	0.476	N/A	N/A	N/A	N/A
W21x44	0.67	0.076	0.149	0.221	0.303	0.389	0.474	N/A	N/A	N/A	N/A
W8x31	0.67	0.076	0.149	0.221	0.303	0.389	0.474	N/A	N/A	N/A	N/A
W16x40	0.69	0.074	0.145	0.215	0.298	0.384	0.469	N/A	N/A	N/A	N/A
W18x40	0.69	0.074	0.145	0.215	0.298	0.384	0.469	N/A	N/A	N/A	N/A
W8x28	0.69	0.074	0.145	0.215	0.298	0.384	0.469	N/A	N/A	N/A	N/A
W10x30	0.7	0.073	0.143	0.212	0.295	0.381	0.467	N/A	N/A	N/A	N/A
W12x35	0.7	0.073	0.143	0.212	0.295	0.381	0.467	N/A	N/A	N/A	N/A
W6x25	0.7	0.073	0.143	0.212	0.295	0.381	0.467	N/A	N/A	N/A	N/A
W14x38	0.71	0.072	0.141	0.210	0.293	0.379	0.466	N/A	N/A	N/A	N/A
W12x40	0.73	0.07	0.137	0.204	0.287	0.374	0.461	N/A	N/A	N/A	N/A
W14x43	0.75	0.069	0.134	0.199	0.282	0.370	0.458	N/A	N/A	N/A	N/A
W21x50	0.75	0.069	0.134	0.199	0.282	0.370	0.458	N/A	N/A	N/A	N/A
W24x55	0.75	0.069	0.134	0.199	0.282	0.370	0.458	N/A	N/A	N/A	N/A
W8x35	0.75	0.069	0.134	0.199	0.282	0.370	0.458	N/A	N/A	N/A	N/A
W16x45	0.77	0.067	0.131	0.195	0.278	0.367	0.455	0.543	N/A	N/A	N/A
W10x39	0.78	0.066	0.129	0.192	0.274	0.361	0.448	0.535	N/A	N/A	N/A
W18x50	0.78	0.066	0.129	0.192	0.274	0.361	0.448	0.535	N/A	N/A	N/A
W18x46	0.79	0.066	0.128	0.190	0.271	0.357	0.443	0.529	N/A	N/A	N/A
W12x45	0.83	0.063	0.122	0.181	0.259	0.342	0.425	0.508	N/A	N/A	N/A
W10x49	0.84	0.062	0.121	0.179	0.256	0.338	0.420	0.503	N/A	N/A	N/A
W14x48	0.84	0.062	0.121	0.179	0.256	0.338	0.420	0.503	N/A	N/A	N/A
W24x62	0.84	0.062	0.121	0.179	0.256	0.338	0.420	0.503	N/A	N/A	N/A
W24x68	0.84	0.062	0.121	0.179	0.256	0.338	0.420	0.503	N/A	N/A	N/A
W16x50	0.85	0.062	0.119	0.177	0.253	0.335	0.416	0.497	N/A	N/A	N/A
W18x55	0.85	0.062	0.119	0.177	0.253	0.335	0.416	0.497	N/A	N/A	N/A
W21x62	0.85	0.062	0.119	0.177	0.253	0.335	0.416	0.497	N/A	N/A	N/A



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W8x40	0.85	0.062	0.119	0.177	0.253	0.335	0.416	0.497	N/A	N/A	N/A
W12x53	0.86	0.061	0.118	0.174	0.250	0.331	0.411	0.492	N/A	N/A	N/A
W21x57	0.86	0.061	0.118	0.174	0.250	0.331	0.411	0.492	N/A	N/A	N/A
W10x45	0.89	0.059	0.114	0.169	0.243	0.321	0.400	0.478	0.557	N/A	N/A
W12x50	0.91	0.058	0.112	0.166	0.239	0.316	0.393	0.470	0.547	N/A	N/A
W10x54	0.92	0.058	0.111	0.164	0.236	0.312	0.388	0.465	0.541	N/A	N/A
W14x53	0.92	0.058	0.111	0.164	0.236	0.312	0.388	0.465	0.541	N/A	N/A
W18x60	0.92	0.058	0.111	0.164	0.236	0.312	0.388	0.465	0.541	N/A	N/A
W27x84	0.92	0.058	0.111	0.164	0.236	0.312	0.388	0.465	0.541	N/A	N/A
W12x58	0.93	0.057	0.109	0.162	0.233	0.308	0.384	0.459	0.535	N/A	N/A
W12x65	0.93	0.057	0.109	0.162	0.233	0.308	0.384	0.459	0.535	N/A	N/A
W14x61	0.93	0.057	0.109	0.162	0.233	0.308	0.384	0.459	0.535	N/A	N/A
W21x68	0.93	0.057	0.109	0.162	0.233	0.308	0.384	0.459	0.535	N/A	N/A
W24x76	0.93	0.057	0.109	0.162	0.233	0.308	0.384	0.459	0.535	N/A	N/A
W16x67	0.94	0.057	0.109	0.161	0.231	0.306	0.382	0.457	0.532	N/A	N/A
W16x57	0.96	0.056	0.107	0.157	0.227	0.301	0.375	0.449	0.523	N/A	N/A
W18x76	0.97	0.055	0.105	0.155	0.224	0.297	0.370	0.443	0.516	N/A	N/A
W21x73	0.99	0.054	0.104	0.153	0.221	0.293	0.366	0.438	0.510	N/A	N/A
W18x65	1	0.054	0.102	0.151	0.218	0.289	0.361	0.432	0.504	N/A	N/A
W30x99	1	0.054	0.102	0.151	0.218	0.289	0.361	0.432	0.504	N/A	N/A
W8x48	1	0.054	0.102	0.151	0.218	0.289	0.361	0.432	0.504	N/A	N/A
W10x60	1.01	0.053	0.102	0.150	0.216	0.288	0.359	0.430	0.501	N/A	N/A
W12x72	1.02	0.053	0.1	0.148	0.214	0.284	0.354	0.424	0.495	N/A	N/A
W24x84	1.02	0.053	0.1	0.148	0.214	0.284	0.354	0.424	0.495	N/A	N/A
W27x94	1.03	0.052	0.1	0.147	0.212	0.282	0.352	0.422	0.492	N/A	N/A
W14x68	1.04	0.052	0.099	0.146	0.211	0.280	0.350	0.419	0.488	N/A	N/A
W16x77	1.07	0.051	0.096	0.141	0.205	0.273	0.340	0.408	0.476	N/A	N/A
W24x104	1.07	0.051	0.096	0.141	0.205	0.273	0.340	0.408	0.476	N/A	N/A
W14x90	1.08	0.050	0.095	0.140	0.203	0.271	0.338	0.406	0.473	N/A	N/A
W18x71	1.08	0.050	0.095	0.140	0.203	0.271	0.338	0.406	0.473	N/A	N/A
W33x118	1.08	0.050	0.095	0.140	0.203	0.271	0.338	0.406	0.473	N/A	N/A



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W18x86	1.09	0.05	0.095	0.139	0.202	0.269	0.336	0.403	0.470	N/A	N/A
W30x108	1.09	0.05	0.095	0.139	0.202	0.269	0.336	0.403	0.470	N/A	N/A
W12x79	1.11	0.049	0.093	0.137	0.199	0.265	0.331	0.397	0.464	N/A	N/A
W27x102	1.11	0.049	0.093	0.137	0.199	0.265	0.331	0.397	0.464	N/A	N/A
W14x74	1.12	0.049	0.092	0.136	0.197	0.263	0.329	0.395	0.461	N/A	N/A
W21x83	1.12	0.049	0.092	0.136	0.197	0.263	0.329	0.395	0.461	N/A	N/A
W21x101	1.13	0.049	0.092	0.135	0.196	0.261	0.327	0.392	0.457	N/A	N/A
W24x94	1.14	0.048	0.091	0.134	0.194	0.259	0.324	0.389	0.454	N/A	N/A
W10x68	1.15	0.048	0.090	0.133	0.193	0.258	0.322	0.387	0.451	N/A	N/A
W36x135	1.15	0.048	0.090	0.133	0.193	0.258	0.322	0.387	0.451	N/A	N/A
W30x116	1.16	0.047	0.089	0.131	0.190	0.254	0.318	0.381	0.445	N/A	N/A
W14x99	1.18	0.047	0.088	0.129	0.188	0.252	0.315	0.379	0.442	N/A	N/A
W33x130	1.18	0.047	0.088	0.129	0.188	0.252	0.315	0.379	0.442	N/A	N/A
W24x117	1.2	0.046	0.087	0.127	0.186	0.248	0.311	0.373	0.436	N/A	N/A
W8x58	1.2	0.046	0.087	0.127	0.186	0.248	0.311	0.373	0.436	N/A	N/A
W12x87	1.22	0.046	0.085	0.125	0.183	0.244	0.306	0.368	0.430	N/A	N/A
W16x89	1.22	0.046	0.085	0.125	0.183	0.244	0.306	0.368	0.430	N/A	N/A
W18x97	1.22	0.046	0.085	0.125	0.183	0.244	0.306	0.368	0.430	N/A	N/A
W14x82	1.23	0.045	0.085	0.124	0.181	0.242	0.304	0.365	0.426	N/A	N/A
W27x114	1.23	0.045	0.085	0.124	0.181	0.242	0.304	0.365	0.426	N/A	N/A
W21x111	1.24	0.045	0.084	0.123	0.180	0.241	0.302	0.362	0.423	N/A	N/A
W21x93	1.24	0.045	0.084	0.123	0.180	0.241	0.302	0.362	0.423	N/A	N/A
W30x124	1.24	0.045	0.084	0.123	0.180	0.241	0.302	0.362	0.423	N/A	N/A
W10x77	1.28	0.044	0.082	0.120	0.175	0.235	0.295	0.354	0.414	N/A	N/A
W33x141	1.28	0.044	0.082	0.120	0.175	0.235	0.295	0.354	0.414	N/A	N/A
W36x150	1.28	0.044	0.082	0.120	0.175	0.235	0.295	0.354	0.414	N/A	N/A
W14x109	1.29	0.044	0.081	0.119	0.174	0.233	0.292	0.352	0.411	N/A	N/A
W30x132	1.32	0.043	0.080	0.117	0.171	0.229	0.288	0.346	0.405	N/A	N/A
W18x106	1.33	0.043	0.079	0.115	0.169	0.227	0.286	0.344	0.402	N/A	N/A
W24x131	1.33	0.043	0.079	0.115	0.169	0.227	0.286	0.344	0.402	N/A	N/A
W12x96	1.34	0.042	0.078	0.114	0.168	0.226	0.283	0.341	0.399	N/A	N/A



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W21x122	1.35	0.042	0.078	0.113	0.166	0.224	0.281	0.338	0.395	N/A	N/A
W27x146	1.35	0.042	0.078	0.113	0.166	0.224	0.281	0.338	0.395	N/A	N/A
W36x160	1.36	0.042	0.078	0.113	0.166	0.224	0.281	0.338	0.395	N/A	N/A
W16x100	1.37	0.042	0.077	0.112	0.165	0.222	0.279	0.336	0.392	N/A	N/A
W33x152	1.37	0.042	0.077	0.112	0.165	0.222	0.279	0.336	0.392	N/A	N/A
W8x67	1.37	0.042	0.077	0.112	0.165	0.222	0.279	0.336	0.392	N/A	N/A
W14x120	1.42	0.041	0.075	0.109	0.160	0.216	0.272	0.327	0.383	N/A	N/A
W36x170	1.44	0.04	0.074	0.107	0.158	0.212	0.267	0.322	0.377	N/A	N/A
W10x88	1.45	0.04	0.074	0.107	0.158	0.212	0.267	0.322	0.377	N/A	N/A
W21x132	1.45	0.04	0.074	0.107	0.158	0.212	0.267	0.322	0.377	N/A	N/A
W30x173	1.45	0.04	0.074	0.107	0.158	0.212	0.267	0.322	0.377	N/A	N/A
W12x106	1.47	0.039	0.072	0.105	0.155	0.209	0.263	0.317	0.371	N/A	N/A
W18x119	1.48	0.039	0.072	0.105	0.155	0.209	0.263	0.317	0.371	N/A	N/A
W24x146	1.48	0.039	0.072	0.105	0.155	0.209	0.263	0.317	0.371	N/A	N/A
W27x161	1.48	0.039	0.072	0.105	0.155	0.209	0.263	0.317	0.371	N/A	N/A
W36x182	1.53	0.038	0.070	0.102	0.150	0.203	0.256	0.309	0.361	N/A	N/A
W14x132	1.56	0.038	0.069	0.099	0.147	0.199	0.251	0.303	0.355	N/A	N/A
W33x201	1.58	0.037	0.068	0.098	0.146	0.197	0.249	0.300	0.352	N/A	N/A
W21x147	1.61	0.037	0.067	0.096	0.143	0.194	0.244	0.295	0.346	N/A	N/A
W30x191	1.62	0.037	0.067	0.096	0.143	0.194	0.244	0.295	0.346	N/A	N/A
W24x162	1.63	0.036	0.066	0.095	0.141	0.192	0.242	0.292	0.343	N/A	N/A
W27x178	1.63	0.036	0.066	0.095	0.141	0.192	0.242	0.292	0.343	N/A	N/A
W36x194	1.63	0.036	0.066	0.095	0.141	0.192	0.242	0.292	0.343	N/A	N/A
W10x100	1.64	0.036	0.066	0.095	0.141	0.192	0.242	0.292	0.343	N/A	N/A
W14x145	1.64	0.036	0.066	0.095	0.141	0.192	0.242	0.292	0.343	N/A	N/A
W12x120	1.65	0.036	0.065	0.094	0.140	0.190	0.240	0.290	0.340	N/A	N/A
W36x230	1.72	0.035	0.063	0.091	0.135	0.184	0.233	0.282	0.330	N/A	N/A
W33x221	1.73	0.035	0.063	0.091	0.135	0.184	0.233	0.282	0.330	N/A	N/A
W30x211	1.76	0.034	0.062	0.089	0.133	0.180	0.228	0.276	0.324	N/A	N/A
W36x210	1.76	0.034	0.062	0.089	0.133	0.180	0.228	0.276	0.324	N/A	N/A
W14x159	1.78	0.034	0.062	0.089	0.133	0.180	0.228	0.276	0.324	N/A	N/A



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W10x112	1.81	0.034	0.06	0.087	0.130	0.177	0.224	0.271	0.318	N/A	N/A
W36x245	1.81	0.034	0.06	0.087	0.130	0.177	0.224	0.271	0.318	N/A	N/A
W12x136	1.86	0.033	0.059	0.084	0.127	0.173	0.219	0.265	0.312	N/A	N/A
W33x241	1.87	0.033	0.059	0.084	0.127	0.173	0.219	0.265	0.312	N/A	N/A
W36x260	1.93	0.032	0.057	0.082	0.124	0.169	0.215	0.260	0.306	N/A	N/A
W14x176	1.96	0.032	0.057	0.081	0.122	0.167	0.212	0.257	0.302	N/A	N/A
W12x152	2.04	0.031	0.055	0.078	0.118	0.162	0.205	0.249	0.293	N/A	N/A
W36x280	2.06	0.031	0.054	0.077	0.116	0.160	0.203	0.247	0.290	N/A	N/A
W14x193	2.14	0.03	0.052	0.075	0.113	0.156	0.199	0.241	0.284	N/A	N/A
W36x300	2.21	0.029	0.051	0.073	0.110	0.152	0.194	0.236	0.278	N/A	N/A
W12x170	2.26	0.029	0.05	0.072	0.109	0.150	0.192	0.233	0.275	N/A	N/A
W14x211	2.32	0.028	0.049	0.069	0.106	0.147	0.187	0.228	0.268	N/A	N/A
W12x190	2.50	0.027	0.046	0.065	0.100	0.139	0.178	0.217	0.256	0.298	0.338
W14x233	2.55	0.027	0.046	0.065	0.100	0.139	0.178	0.217	0.256	0.298	0.338
W12x210	2.73	0.027	0.046	0.065	0.100	0.139	0.178	0.217	0.256	0.298	0.338

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Required Thickness (mm)
Rating Period (hr)

Hp/A	1	1-1/2	2	2-1/2	3	3-1/2	4	4-1/2	5	5-1/2
415	3.77	6.67	9.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A
410	3.73	6.61	9.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A
405	3.69	6.54	9.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A
400	3.64	6.48	9.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
395	3.60	6.41	9.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A
390	3.56	6.35	9.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
385	3.51	6.28	9.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A
380	3.47	6.22	8.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A
375	3.43	6.15	8.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A
370	3.39	6.09	8.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A
365	3.34	6.02	8.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A
360	3.3	5.96	8.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
355	3.26	5.89	8.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A
350	3.22	5.83	8.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A
345	3.17	5.76	8.34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
340	3.13	5.7	8.26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
335	3.09	5.63	8.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A
330	3.04	5.57	8.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A
325	3	5.5	7.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A
320	2.96	5.44	7.91	N/A	N/A	N/A	N/A	N/A	N/A	N/A
315	2.92	5.37	7.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A
310	2.87	5.31	7.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A
305	2.83	5.24	7.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A
300	2.79	5.18	7.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A
295	2.75	5.11	7.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A
290	2.70	5.05	7.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A
285	2.66	4.98	7.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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280	2.62	4.92	7.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A
275	2.57	4.85	7.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A
270	2.53	4.79	7.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A
265	2.49	4.72	6.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A
260	2.45	4.66	6.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A
255	2.4	4.59	6.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A
250	2.36	4.53	6.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A
245	2.32	4.47	6.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
240	2.28	4.4	6.51	N/A	N/A	N/A	N/A	N/A	N/A	N/A
235	2.23	4.34	6.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A
230	2.19	4.27	6.34	8.42	10.50	12.57	N/A	N/A	N/A	N/A
225	2.15	4.19	6.21	8.30	10.39	12.48	N/A	N/A	N/A	N/A
220	2.1	4.1	6.09	8.18	10.28	12.39	N/A	N/A	N/A	N/A
215	2.06	4.01	5.96	8.05	10.18	12.29	N/A	N/A	N/A	N/A
210	2.02	3.93	5.84	7.93	10.07	12.20	N/A	N/A	N/A	N/A
205	1.97	3.84	5.71	7.81	9.96	12.11	N/A	N/A	N/A	N/A
200	1.93	3.76	5.58	7.68	9.85	12.01	N/A	N/A	N/A	N/A
195	1.89	3.67	5.46	7.56	9.74	11.92	N/A	N/A	N/A	N/A
190	1.84	3.59	5.33	7.44	9.64	11.83	N/A	N/A	N/A	N/A
185	1.8	3.5	5.2	7.32	9.53	11.74	N/A	N/A	N/A	N/A
180	1.75	3.42	5.08	7.19	9.42	11.64	N/A	N/A	N/A	N/A
175	1.71	3.33	4.95	7.07	9.31	11.55	13.79	N/A	N/A	N/A
170	1.67	3.24	4.81	6.88	9.07	11.26	13.45	N/A	N/A	N/A
165	1.63	3.15	4.68	6.70	8.83	10.97	13.11	N/A	N/A	N/A
160	1.58	3.06	4.54	6.51	8.59	10.68	12.76	N/A	N/A	N/A
155	1.54	2.97	4.41	6.32	8.36	10.39	12.42	N/A	N/A	N/A
150	1.5	2.88	4.27	6.14	8.12	10.10	12.08	14.06	N/A	N/A
145	1.46	2.80	4.13	5.95	7.88	9.81	11.74	13.67	N/A	N/A



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140	1.41	2.71	4	5.76	7.64	9.52	11.40	13.27	N/A	N/A
135	1.37	2.62	3.86	5.57	7.40	9.23	11.05	12.88	N/A	N/A
130	1.33	2.53	3.72	5.39	7.16	8.94	10.71	12.49	N/A	N/A
125	1.29	2.44	3.59	5.20	6.92	8.65	10.37	12.09	N/A	N/A
120	1.24	2.35	3.45	5.01	6.68	8.36	10.03	11.70	N/A	N/A
115	1.20	2.26	3.32	4.83	6.45	8.07	9.69	11.31	N/A	N/A
110	1.16	2.17	3.18	4.64	6.21	7.78	9.34	10.91	N/A	N/A
105	1.12	2.08	3.04	4.45	5.97	7.48	9.00	10.52	N/A	N/A
100	1.07	1.99	2.91	4.26	5.73	7.19	8.66	10.12	N/A	N/A
95	1.03	1.9	2.77	4.08	5.49	6.90	8.32	9.73	N/A	N/A
90	0.99	1.81	2.63	3.89	5.25	6.61	7.98	9.34	N/A	N/A
85	0.95	1.73	2.5	3.70	5.01	6.32	7.63	8.94	N/A	N/A
80	0.9	1.64	2.36	3.52	4.77	6.03	7.29	8.55	N/A	N/A
75	0.86	1.55	2.23	3.33	4.54	5.74	6.95	8.16	N/A	N/A
70	0.82	1.46	2.09	3.14	4.30	5.45	6.61	7.76	N/A	N/A
65	0.78	1.37	1.95	2.95	4.06	5.16	6.26	7.37	N/A	N/A
60	0.73	1.28	1.82	2.77	3.82	4.87	5.92	6.97	N/A	N/A
55	0.69	1.19	1.68	2.58	3.58	4.58	5.58	6.58	7.58	8.58
50	0.69	1.19	1.68	2.58	3.58	4.58	5.58	6.58	7.58	8.58

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Fire Finish 120+ CFP-SP WB investigated for Conditioned Interior Space Purpose and Interior General Purpose and UL2431 CLASSIFICATION CATEGORY II- A-3.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Fire Finish 120+ CFP-SP WB INVESTIGATED FOR EXTERIOR ENVIRONMENTAL PURPOSE and UL2431 CLASSIFICATION CATEGORY I- A WITH TOPCOAT - TYPE HENSOTOP 2K PU or TYPE HI SOLIDS POLYURETHANE 250.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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