

Appendix 3

Certificate Number: 1109a (1) Issue: 11

Issued to: **INTERNATIONAL PAINT LIMITED**

For: **Interchar 1190**

Required Intumescent Dry Film Thickness (dft) in millimetres (mm) of Interchar 1190 for rectangular and circular hollow section columns, with 4 sided exposure

This appendix forms part of Certificate Number 1109a (1), Issue 11, issued to:

INTERNATIONAL PAINT LIMITED
Stoneygate lane
Felling
Gateshead
Tyne & Wear
NE10 0JY

on 10 August 2020

To check the validity of the Certificate and Appendix please visit www.redbooklive.com

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Table 1 Required thickness (mm) of Interchar 1190 for a fire resistance period of 15 minutes

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
50	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
55	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
60	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
65	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
70	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
75	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
80	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
85	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
90	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
95	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
100	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
105	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
110	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
115	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
120	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
125	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
130	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
135	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
140	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
145	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
150	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
155	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
160	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
165	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
170	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
175	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
180	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
185	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
190	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
195	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
200	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
205	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
210	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
215	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
220	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
225	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211

Table 2 Required thickness (mm) of Interchar 1190 for a fire resistance period of 30 minutes

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
50	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
55	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
60	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
65	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
70	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
75	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
80	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
85	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
90	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
95	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
100	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
105	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
110	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
115	1.233	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
120	1.269	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
125	1.304	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
130	1.340	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
135	1.376	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
140	1.412	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
145	1.448	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
150	1.484	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
155	1.520	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
160	1.555	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
165	1.591	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
170	1.627	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
175	1.663	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
180	1.699	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
185	1.735	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
190	1.771	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
195	1.806	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
200	1.842	1.221	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
205	1.878	1.272	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
210	1.914	1.323	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
215	1.950	1.374	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
220	1.986	1.425	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
225	2.021	1.476	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211

Table 3 Required thickness (mm) of Interchar 1190 for a fire resistance period of 45 minutes

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
50	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
55	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
60	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
65	1.230	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
70	1.291	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
75	1.352	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
80	1.413	1.224	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
85	1.474	1.270	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
90	1.535	1.316	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
95	1.596	1.363	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
100	1.657	1.409	1.219	1.211	1.211	1.211	1.211	1.211	1.211	1.211
105	1.718	1.455	1.263	1.211	1.211	1.211	1.211	1.211	1.211	1.211
110	1.779	1.501	1.307	1.211	1.211	1.211	1.211	1.211	1.211	1.211
115	1.840	1.547	1.350	1.211	1.211	1.211	1.211	1.211	1.211	1.211
120	1.901	1.593	1.394	1.211	1.211	1.211	1.211	1.211	1.211	1.211

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
125	1.961	1.639	1.438	1.211	1.211	1.211	1.211	1.211	1.211	1.211
130	2.022	1.685	1.482	1.213	1.211	1.211	1.211	1.211	1.211	1.211
135	2.083	1.732	1.526	1.258	1.211	1.211	1.211	1.211	1.211	1.211
140	2.144	1.778	1.570	1.302	1.211	1.211	1.211	1.211	1.211	1.211
145	2.205	1.824	1.614	1.347	1.211	1.211	1.211	1.211	1.211	1.211
150	2.266	1.870	1.658	1.392	1.221	1.211	1.211	1.211	1.211	1.211
155	2.327	1.916	1.701	1.437	1.268	1.211	1.211	1.211	1.211	1.211
160	2.393	1.962	1.745	1.481	1.316	1.211	1.211	1.211	1.211	1.211
165	2.465	2.008	1.789	1.526	1.364	1.211	1.211	1.211	1.211	1.211
170	2.536	2.054	1.833	1.571	1.411	1.211	1.211	1.211	1.211	1.211
175	2.607	2.101	1.877	1.616	1.459	1.211	1.211	1.211	1.211	1.211
180	2.678	2.147	1.921	1.660	1.506	1.211	1.211	1.211	1.211	1.211
185	2.749	2.193	1.965	1.705	1.554	1.238	1.211	1.211	1.211	1.211
190	2.820	2.239	2.009	1.750	1.602	1.292	1.211	1.211	1.211	1.211
195	2.891	2.285	2.053	1.795	1.649	1.347	1.211	1.211	1.211	1.211
200	2.962	2.331	2.096	1.839	1.697	1.401	1.211	1.211	1.211	1.211
205	3.033	2.391	2.140	1.884	1.745	1.456	1.211	1.211	1.211	1.211
210	3.104	2.466	2.184	1.929	1.792	1.510	1.211	1.211	1.211	1.211
215	3.176	2.542	2.228	1.974	1.840	1.564	1.239	1.211	1.211	1.211
220	3.247	2.617	2.272	2.018	1.887	1.619	1.291	1.211	1.211	1.211
225	3.318	2.693	2.316	2.063	1.935	1.673	1.343	1.211	1.211	1.211

Table 4 Required thickness (mm) of Interchar 1190 for a fire resistance period of 60 minutes

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
50	1.226	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
55	1.442	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
60	1.658	1.251	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
65	1.873	1.352	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
70	2.089	1.454	1.251	1.211	1.211	1.211	1.211	1.211	1.211	1.211
75	2.305	1.555	1.319	1.211	1.211	1.211	1.211	1.211	1.211	1.211
80	2.408	1.656	1.386	1.225	1.211	1.211	1.211	1.211	1.211	1.211
85	2.475	1.757	1.454	1.281	1.220	1.211	1.211	1.211	1.211	1.211
90	2.542	1.859	1.521	1.337	1.272	1.211	1.211	1.211	1.211	1.211
95	2.610	1.960	1.589	1.393	1.325	1.223	1.211	1.211	1.211	1.211
100	2.677	2.061	1.656	1.449	1.377	1.272	1.211	1.211	1.211	1.211
105	2.744	2.162	1.724	1.505	1.429	1.321	1.211	1.211	1.211	1.211
110	2.812	2.264	1.792	1.561	1.482	1.370	1.211	1.211	1.211	1.211
115	2.879	2.362	1.859	1.616	1.534	1.419	1.220	1.211	1.211	1.211
120	2.946	2.436	1.927	1.672	1.586	1.468	1.268	1.211	1.211	1.211
125	3.014	2.509	1.994	1.728	1.639	1.517	1.316	1.211	1.211	1.211
130	3.081	2.582	2.062	1.784	1.691	1.567	1.364	1.211	1.211	1.211
135	3.148	2.655	2.129	1.840	1.743	1.616	1.412	1.211	1.211	1.211
140	3.216	2.728	2.197	1.896	1.796	1.665	1.460	1.211	1.211	1.211
145	3.283	2.801	2.264	1.952	1.848	1.714	1.508	1.211	1.211	1.211
150	3.350	2.874	2.332	2.008	1.901	1.763	1.556	1.216	1.211	1.211
155	3.418	2.948	2.408	2.063	1.953	1.812	1.604	1.268	1.211	1.211
160	3.485	3.021	2.489	2.119	2.005	1.861	1.652	1.321	1.211	1.211

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
165	3.552	3.094	2.569	2.175	2.058	1.910	1.701	1.373	1.211	1.211
170	3.620	3.167	2.650	2.231	2.110	1.959	1.749	1.425	1.211	1.211
175	3.687	3.240	2.731	2.287	2.162	2.009	1.797	1.478	1.211	1.211
180	3.754	3.313	2.812	2.343	2.215	2.058	1.845	1.530	1.211	1.211
185	3.822	3.386	2.893	2.419	2.267	2.107	1.893	1.582	1.211	1.211
190	3.889	3.459	2.973	2.502	2.319	2.156	1.941	1.635	1.211	1.211
195	3.956	3.533	3.054	2.585	2.381	2.205	1.989	1.687	1.243	1.211
200	4.024	3.606	3.135	2.668	2.465	2.254	2.037	1.739	1.301	1.211
205	4.091	3.679	3.216	2.751	2.549	2.303	2.085	1.792	1.359	1.211
210	4.158	3.752	3.297	2.834	2.632	2.352	2.134	1.844	1.416	1.211
215	4.225	3.825	3.377	2.917	2.716	2.433	2.182	1.897	1.474	1.211
220	4.358	3.898	3.458	3.000	2.800	2.516	2.230	1.949	1.532	1.211
225	4.514	3.971	3.539	3.083	2.884	2.599	2.278	2.001	1.590	1.226

Table 5 Required thickness (mm) of Interchar 1190 for a fire resistance period of 75 minutes

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
50	2.427	1.363	1.211	1.211	1.211	1.211	1.211	1.211	1.211	1.211
55	2.568	1.749	1.215	1.211	1.211	1.211	1.211	1.211	1.211	1.211
60	2.709	2.135	1.401	1.211	1.211	1.211	1.211	1.211	1.211	1.211
65	2.849	2.396	1.587	1.298	1.245	1.211	1.211	1.211	1.211	1.211
70	2.990	2.488	1.773	1.391	1.322	1.229	1.211	1.211	1.211	1.211
75	3.130	2.580	1.959	1.485	1.400	1.300	1.211	1.211	1.211	1.211
80	3.271	2.673	2.145	1.578	1.477	1.371	1.211	1.211	1.211	1.211

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
85	3.412	2.765	2.331	1.671	1.555	1.442	1.271	1.211	1.211	1.211
90	3.552	2.857	2.420	1.764	1.632	1.513	1.333	1.211	1.211	1.211
95	3.693	2.950	2.494	1.858	1.709	1.584	1.395	1.211	1.211	1.211
100	3.834	3.042	2.568	1.951	1.787	1.655	1.458	1.257	1.211	1.211
105	3.974	3.134	2.642	2.044	1.864	1.726	1.520	1.313	1.211	1.211
110	4.115	3.226	2.716	2.137	1.941	1.797	1.582	1.368	1.211	1.211
115	4.251	3.319	2.790	2.230	2.019	1.868	1.645	1.424	1.211	1.211
120	4.337	3.411	2.864	2.324	2.096	1.939	1.707	1.480	1.257	1.211
125	4.423	3.503	2.938	2.411	2.173	2.010	1.769	1.536	1.310	1.211
130	4.509	3.596	3.011	2.496	2.251	2.081	1.831	1.592	1.364	1.211
135	4.595	3.688	3.085	2.580	2.328	2.152	1.894	1.648	1.418	1.211
140	4.681	3.780	3.159	2.665	2.413	2.223	1.956	1.704	1.472	1.211
145	4.766	3.873	3.233	2.749	2.503	2.294	2.018	1.760	1.525	1.225
150	4.852	3.965	3.307	2.834	2.593	2.368	2.080	1.816	1.579	1.278
155	4.938	4.057	3.381	2.918	2.683	2.457	2.143	1.872	1.633	1.331
160	5.024	4.149	3.455	3.002	2.772	2.546	2.205	1.927	1.687	1.383
165	5.110	4.242	3.529	3.087	2.862	2.634	2.267	1.983	1.740	1.436
170	5.196	4.364	3.603	3.171	2.952	2.723	2.329	2.039	1.794	1.488
175	5.282	4.486	3.677	3.256	3.041	2.812	2.405	2.095	1.848	1.541
180	5.368	4.609	3.751	3.340	3.131	2.901	2.491	2.151	1.901	1.593
185	5.454	4.731	3.825	3.425	3.221	2.990	2.578	2.207	1.955	1.646
190	5.540	4.854	3.899	3.509	3.311	3.079	2.664	2.263	2.009	1.699
195	5.626	4.976	3.973	3.594	3.400	3.168	2.751	2.319	2.063	1.751
200	5.711	5.099	4.047	3.678	3.490	3.257	2.837	2.383	2.116	1.804

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
205	5.797	5.221	4.121	3.763	3.580	3.346	2.923	2.466	2.170	1.856
210	5.883	5.344	4.194	3.847	3.670	3.435	3.010	2.549	2.224	1.909
215	5.969	5.466	4.314	3.932	3.759	3.524	3.096	2.631	2.278	1.962
220	6.137	5.589	4.527	4.016	3.849	3.612	3.182	2.714	2.331	2.014
225	6.385	5.711	4.741	4.100	3.939	3.701	3.269	2.796	2.395	2.067

Table 6 Required thickness (mm) of Interchar 1190 for a fire resistance period of 90 minutes

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
50	3.543	2.761	2.228	1.211	1.211	1.211	1.211	1.211	1.211	1.211
55	3.751	2.936	2.351	1.397	1.251	1.211	1.211	1.211	1.211	1.211
60	3.959	3.111	2.475	1.693	1.478	1.288	1.211	1.211	1.211	1.211
65	4.167	3.286	2.598	1.989	1.704	1.445	1.244	1.211	1.211	1.211
70	4.306	3.461	2.722	2.285	1.931	1.602	1.333	1.211	1.211	1.211
75	4.403	3.636	2.845	2.430	2.158	1.759	1.422	1.234	1.211	1.211
80	4.501	3.810	2.969	2.528	2.367	1.916	1.511	1.310	1.211	1.211
85	4.599	3.985	3.092	2.625	2.456	2.074	1.600	1.386	1.211	1.211
90	4.697	4.160	3.216	2.722	2.546	2.231	1.689	1.461	1.257	1.211
95	4.795	4.292	3.339	2.820	2.635	2.373	1.778	1.537	1.325	1.211
100	4.893	4.385	3.463	2.917	2.724	2.453	1.867	1.613	1.393	1.211
105	4.991	4.478	3.586	3.015	2.813	2.534	1.956	1.688	1.461	1.257
110	5.089	4.571	3.710	3.112	2.902	2.615	2.045	1.764	1.529	1.315
115	5.187	4.664	3.833	3.209	2.991	2.696	2.135	1.840	1.597	1.373
120	5.285	4.757	3.957	3.307	3.080	2.776	2.224	1.916	1.665	1.430

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
125	5.383	4.850	4.080	3.404	3.169	2.857	2.313	1.991	1.733	1.488
130	5.481	4.942	4.204	3.502	3.258	2.938	2.403	2.067	1.801	1.546
135	5.579	5.035	4.319	3.599	3.348	3.019	2.494	2.143	1.869	1.604
140	5.677	5.128	4.430	3.696	3.437	3.100	2.585	2.218	1.937	1.661
145	5.775	5.221	4.541	3.794	3.526	3.180	2.675	2.294	2.005	1.719
150	5.873	5.314	4.652	3.891	3.615	3.261	2.766	2.372	2.073	1.777
155	5.971	5.407	4.762	3.989	3.704	3.342	2.857	2.461	2.141	1.835
160	6.122	5.500	4.873	4.086	3.793	3.423	2.948	2.550	2.209	1.892
165	6.309	5.592	4.984	4.184	3.882	3.503	3.039	2.639	2.277	1.950
170	6.497	5.685	5.095	4.303	3.971	3.584	3.130	2.728	2.345	2.008
175	6.685	5.778	5.206	4.457	4.060	3.665	3.221	2.817	2.425	2.065
180	6.873	5.871	5.317	4.611	4.149	3.746	3.312	2.906	2.507	2.123
185	7.061	5.964	5.428	4.765	4.239	3.827	3.403	2.995	2.590	2.181
190	7.249	6.124	5.539	4.919	4.424	3.907	3.494	3.084	2.672	2.239
195	7.437	6.355	5.649	5.074	4.615	3.988	3.584	3.173	2.755	2.296
200	7.625	6.587	5.760	5.228	4.807	4.069	3.675	3.262	2.838	2.354
205	7.813	6.818	5.871	5.382	4.998	4.150	3.766	3.351	2.920	2.431
210	8.001	7.050	5.982	5.536	5.189	4.230	3.857	3.440	3.003	2.508
215	8.189	7.281	6.211	5.690	5.381	4.489	3.948	3.529	3.086	2.586
220	8.376	7.513	6.484	5.845	5.572	4.783	4.039	3.618	3.168	2.663
225	8.564	7.744	6.757	5.999	5.764	5.077	4.130	3.707	3.251	2.740

Table 7 Required thickness (mm) of Interchar 1190 for a fire resistance period of 105 minutes

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
50	4.340	3.773	3.002	2.345	2.216	1.245	1.211	1.211	1.211	1.211
55	4.512	3.986	3.215	2.514	2.358	1.674	1.211	1.211	1.211	1.211
60	4.684	4.199	3.427	2.682	2.500	2.103	1.429	1.211	1.211	1.211
65	4.855	4.333	3.640	2.851	2.642	2.405	1.664	1.294	1.211	1.211
70	5.027	4.446	3.852	3.019	2.785	2.524	1.898	1.432	1.217	1.211
75	5.199	4.559	4.065	3.188	2.927	2.643	2.132	1.571	1.304	1.211
80	5.370	4.672	4.261	3.356	3.069	2.762	2.360	1.709	1.390	1.211
85	5.542	4.785	4.371	3.525	3.211	2.880	2.457	1.848	1.477	1.267
90	5.714	4.898	4.481	3.694	3.354	2.999	2.553	1.986	1.563	1.339
95	5.885	5.011	4.591	3.862	3.496	3.118	2.649	2.125	1.650	1.412
100	6.086	5.124	4.701	4.031	3.638	3.237	2.746	2.263	1.736	1.485
105	6.370	5.237	4.811	4.199	3.780	3.356	2.842	2.384	1.822	1.557
110	6.653	5.350	4.921	4.331	3.923	3.474	2.938	2.468	1.909	1.630
115	6.936	5.463	5.031	4.450	4.065	3.593	3.035	2.552	1.995	1.702
120	7.219	5.576	5.142	4.569	4.207	3.712	3.131	2.636	2.082	1.775
125	7.503	5.689	5.252	4.688	4.340	3.831	3.227	2.720	2.168	1.847
130	7.786	5.802	5.362	4.807	4.469	3.950	3.324	2.804	2.255	1.920
135	8.069	5.915	5.472	4.926	4.598	4.068	3.420	2.888	2.341	1.992
140	8.352	6.038	5.582	5.045	4.727	4.187	3.516	2.972	2.432	2.065
145	8.635	6.222	5.692	5.164	4.856	4.319	3.613	3.056	2.523	2.137
150	-	6.406	5.802	5.283	4.985	4.462	3.709	3.141	2.614	2.210
155	-	6.589	5.912	5.402	5.114	4.605	3.805	3.225	2.705	2.282
160	-	6.773	6.030	5.521	5.243	4.748	3.902	3.309	2.796	2.355

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
165	-	6.956	6.235	5.640	5.372	4.892	3.998	3.393	2.888	2.442
170	-	7.140	6.440	5.759	5.500	5.035	4.094	3.477	2.979	2.530
175	-	7.323	6.645	5.878	5.629	5.178	4.190	3.561	3.070	2.618
180	-	7.507	6.851	5.997	5.758	5.321	4.340	3.645	3.161	2.706
185	-	7.691	7.056	6.221	5.887	5.464	4.555	3.729	3.253	2.793
190	-	7.874	7.261	6.459	6.021	5.608	4.771	3.813	3.344	2.881
195	-	8.058	7.466	6.698	6.280	5.751	4.986	3.897	3.435	2.969
200	-	8.241	7.671	6.937	6.540	5.894	5.202	3.981	3.526	3.056
205	-	8.425	7.876	7.176	6.800	6.065	5.417	4.065	3.618	3.144
210	-	8.608	8.082	7.414	7.059	6.365	5.633	4.149	3.709	3.232
215	-	-	8.287	7.653	7.319	6.666	5.848	4.233	3.800	3.320
220	-	-	8.492	7.892	7.578	6.966	6.085	4.649	3.891	3.407
225	-	-	-	8.131	7.838	7.266	6.387	5.112	3.983	3.495

Table 8 Required thickness (mm) of Interchar 1190 for a fire resistance period of 120 minutes

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
50	5.266	4.445	4.055	3.220	2.930	2.468	1.418	1.211	1.211	1.211
55	5.559	4.673	4.197	3.459	3.158	2.677	2.000	1.258	1.211	1.211
60	5.853	4.900	4.346	3.699	3.386	2.885	2.410	1.576	1.211	1.211
65	6.209	5.128	4.498	3.938	3.614	3.094	2.547	1.893	1.346	1.211
70	6.639	5.356	4.650	4.178	3.843	3.302	2.685	2.211	1.530	1.249
75	7.068	5.584	4.802	4.334	4.071	3.511	2.823	2.416	1.714	1.336
80	7.498	5.811	4.954	4.459	4.274	3.719	2.960	2.525	1.897	1.424

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
85	7.928	6.069	5.106	4.584	4.400	3.928	3.098	2.635	2.081	1.511
90	8.357	6.547	5.258	4.709	4.526	4.136	3.236	2.744	2.265	1.598
95	-	7.025	5.410	4.834	4.652	4.308	3.373	2.854	2.400	1.686
100	-	7.503	5.563	4.959	4.777	4.440	3.511	2.963	2.485	1.773
105	-	7.981	5.715	5.084	4.903	4.572	3.649	3.073	2.571	1.861
110	-	8.460	5.867	5.209	5.029	4.703	3.786	3.182	2.657	1.948
115	-	-	6.046	5.334	5.155	4.835	3.924	3.292	2.743	2.035
120	-	-	6.805	5.459	5.281	4.967	4.062	3.401	2.828	2.123
125	-	-	7.564	5.584	5.406	5.099	4.199	3.511	2.914	2.210
130	-	-	8.324	5.709	5.532	5.231	4.358	3.620	3.000	2.297
135	-	-	-	5.834	5.658	5.363	4.527	3.730	3.085	2.388
140	-	-	-	5.959	5.784	5.495	4.696	3.839	3.171	2.487
145	-	-	-	6.188	5.909	5.627	4.865	3.949	3.257	2.586
150	-	-	-	6.495	6.051	5.758	5.034	4.058	3.343	2.684
155	-	-	-	6.802	6.263	5.890	5.203	4.168	3.428	2.783
160	-	-	-	7.108	6.476	6.029	5.372	4.307	3.514	2.882
165	-	-	-	7.415	6.688	6.257	5.541	4.514	3.600	2.981
170	-	-	-	7.721	6.900	6.484	5.710	4.721	3.686	3.079
175	-	-	-	8.028	7.112	6.711	5.879	4.928	3.771	3.178
180	-	-	-	8.335	7.324	6.939	6.068	5.135	3.857	3.277
185	-	-	-	8.641	7.536	7.166	6.332	5.342	3.943	3.375
190	-	-	-	-	7.748	7.393	6.595	5.550	4.029	3.474
195	-	-	-	-	7.960	7.621	6.859	5.757	4.114	3.573
200	-	-	-	-	8.173	7.848	7.123	5.964	4.200	3.672

Section factor (m ⁻¹)	Design temperature (°C)									
	350	400	450	500	520	550	600	650	700	750
205	-	-	-	-	8.385	8.075	7.387	6.261	4.513	3.770
210	-	-	-	-	8.597	8.303	7.651	6.585	5.065	3.869
215	-	-	-	-	-	8.530	7.914	6.910	5.617	3.968
220	-	-	-	-	-	-	8.178	7.235	6.107	4.066
225	-	-	-	-	-	-	8.442	7.559	6.441	4.165