第3表　炭酸ガス吸収係数表（びん内圧力補正表）

M Pa	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25
kg/cm^2	0.000	0.102	0.204	0.306	0.408	0.510	0.612	0.714	0.816	0.918	1.020	1.122	1.224	1.326	1.428	1.530	1.632	1.734	1.835	1.937	2.039	2.141	2.243	2.345	2.447	2.549
℃																										
0	1.713	1.882	2.051	2.220	2.389	2.559	2.728	2.897	3.066	3.235	3.404	3.573	3.742	3.911	4.080	4.250	4.419	4.588	4.755	4.924	5.093	5.263	5.432	5.601	5.770	5.939
1	1.646	1.808	1.971	2.133	2.296	2.458	2.621	2.783	2.946	3.108	3.271	3.433	3.596	3.758	3.921	4.083	4.246	4.408	4.569	4.732	4.894	5.057	5.219	5.382	5.544	5.707
2	1.584	1.740	1.897	2.053	2.209	2.366	2.522	2.679	2.835	2.991	3.148	3.304	3.460	3.617	3.773	3.930	4.086	4.242	4.397	4.554	4.710	4.866	5.023	5.179	5.335	5.492
3	1.527	1.678	1.828	1.979	2.130	2.281	2.431	2.582	2.733	2.884	3.034	3.185	3.336	3.487	3.637	3.788	3.939	4.090	4.239	4.390	4.540	4.691	4.842	4.993	5.143	5.294
4	1.473	1.618	1.764	1.909	2.055	2.200	2.345	2.491	2.636	2.782	2.927	3.073	3.218	3.363	3.509	3.654	3.800	3.945	4.089	4.234	4.380	4.525	4.671	4.816	4.962	5.107
5	1.424	1.565	1.705	1.846	1.986	2.127	2.267	2.408	2.549	2.689	2.830	2.970	3.111	3.252	3.392	3.533	3.673	3.814	3.953	4.094	4.234	4.375	4.515	4.656	4.796	4.937
6	1.377	1.513	1.649	1.785	1.921	2.057	2.193	2.329	2.464	2.600	2.736	2.872	3.008	3.144	3.280	3.416	3.552	3.688	3.823	3.958	4.094	4.230	4.366	4.502	4.638	4.774
7	1.331	1.462	1.594	1.725	1.857	1.988	2.119	2.251	2.382	2.514	2.645	2.776	2.908	3.039	3.171	3.302	3.433	3.565	3.695	3.826	3.958	4.089	4.220	4.352	4.483	4.615
8	1.282	1.409	1.535	1.662	1.788	1.915	2.041	2.168	2.294	2.421	2.548	2.674	2.801	2.927	3.054	3.180	3.307	3.434	3.559	3.685	3.812	3.938	4.065	4.192	4.318	4.445
9	1.237	1.359	1.481	1.603	1.725	1.848	1.970	2.092	2.214	2.336	2.458	2.580	2.702	2.825	2.947	3.069	3.191	3.313	3.434	3.556	3.678	3.800	3.922	4.044	4.167	4.289
10	1.194	1.312	1.430	1.548	1.665	1.783	1.901	2.019	2.137	2.255	2.373	2.491	2.608	2.726	2.844	2.962	3.080	3.198	3.315	3.432	3.550	3.668	3.786	3.904	4.022	4.140
11	1.154	1.268	1.382	1.496	1.610	1.724	1.838	1.951	2.065	2.179	2.293	2.407	2.521	2.635	2.749	2.863	2.977	3.091	3.203	3.317	3.431	3.545	3.659	3.773	3.887	4.001
12	1.117	1.227	1.338	1.448	1.558	1.668	1.779	1.889	1.999	2.109	2.220	2.330	2.440	2.551	2.661	2.771	2.881	2.992	3.101	3.211	3.321	3.432	3.542	3.652	3.762	3.873
13	1.083	1.190	1.297	1.404	1.511	1.618	1.724	1.831	1.938	2.045	2.152	2.259	2.366	2.473	2.580	2.687	2.794	2.901	3.006	3.113	3.220	3.327	3.434	3.541	3.648	3.755
14	1.050	1.154	1.257	1.361	1.465	1.568	1.672	1.776	1.879	1.983	2.087	2.190	2.294	2.398	2.501	2.605	2.708	2.812	2.915	3.018	3.122	3.226	3.329	3.433	3.537	3.640
15	1.019	1.120	1.220	1.321	1.421	1.522	1.623	1.723	1.824	1.924	2.025	2.126	2.226	2.327	2.427	2.528	2.629	2.729	2.829	2.929	3.030	3.131	3.231	3.332	3.432	3.533
16	0.985	1.082	1.179	1.277	1.374	1.471	1.568	1.666	1.763	1.860	1.957	2.055	2.152	2.249	2.346	2.444	2.541	2.638	2.734	2.832	2.929	3.026	3.123	3.221	3.318	3.415
17	0.956	1.050	1.145	1.239	1.334	1.428	1.522	1.617	1.711	1.805	1.900	1.994	2.089	2.183	2.277	2.372	2.466	2.560	2.654	2.748	2.843	2.937	3.031	3.126	3.220	3.314
18	0.928	1.020	1.111	1.203	1.294	1.386	1.478	1.569	1.661	1.753	1.844	1.936	2.027	2.119	2.211	2.302	2.394	2.485	2.576	2.668	2.759	2.851	2.943	3.034	3.126	3.217
19	0.902	0.991	1.080	1.169	1.258	1.347	1.436	1.525	1.614	1.703	1.792	1.881	1.971	2.060	2.149	2.238	2.327	2.416	2.504	2.593	2.682	2.771	2.860	2.949	3.038	3.127
20	0.878	0.965	1.051	1.138	1.225	1.311	1.398	1.485	1.571	1.658	1.745	1.831	1.918	2.005	2.091	2.178	2.265	2.351	2.437	2.524	2.611	2.697	2.784	2.871	2.957	3.044
21	0.854	0.938	1.023	1.107	1.191	1.276	1.360	1.444	1.528	1.613	1.697	1.781	1.866	1.950	2.034	2.119	2.203	2.287	2.371	2.455	2.539	2.624	2.708	2.792	2.877	2.961
22	0.829	0.911	0.993	1.075	1.156	1.238	1.320	1.402	1.484	1.566	1.647	1.729	1.811	1.893	1.975	2.057	2.138	2.220	2.301	2.383	2.465	2.547	2.629	2.710	2.792	2.874
23	0.804	0.883	0.963	1.042	1.121	1.201	1.280	1.360	1.439	1.518	1.598	1.677	1.756	1.836	1.915	1.995	2.074	2.153	2.232	2.311	2.391	2.470	2.549	2.629	2.708	2.787
24	0.781	0.858	0.935	1.012	1.089	1.167	1.244	1.321	1.398	1.475	1.552	1.629	1.706	1.783	1.860	1.938	2.015	2.092	2.168	2.245	2.322	2.399	2.476	2.554	2.631	2.708
25	0.759	0.834	0.909	0.984	1.059	1.134	1.209	1.283	1.358	1.433	1.508	1.583	1.658	1.733	1.808	1.883	1.958	2.033	2.107	2.182	2.257	2.332	2.407	2.482	2.557	2.631

炭酸ガス吸収係数表の見方

(1) 炭酸ガス吸収係数とは、ガス容(gas volume)をいう。

(2) この表をびん内圧力補正表として使用するには、たとえば、びん内圧力が液温10℃で0.30MPaならば、縦の0.30MPaの線と横の10℃の線の交点を見ると4.729のガス容が得られ、これを標準温度20℃に直すには、20℃の横線上で、4.729に最も近い値を探すと、4.691と4.778の中間に位置することがわかる。ここで、縦線でビン内圧力を求めると0.445MPaが得られる。

M Pa	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.49	0.50
kg/cm^2	2.651	2.753	2.855	2.957	3.059	3.161	3.263	3.365	3.467	3.569	3.671	3.773	3.875	3.977	4.079	4.181	4.283	4.385	4.487	4.589	4.691	4.793	4.895	4.997	5.099
℃																									
0	6.108	6.277	6.446	6.615	6.785	6.954	7.123	7.292	7.461	7.630	7.799	7.968	8.137	8.307	8.476	8.645	8.814	8.983	9.152	9.321	9.490	9.659	9.828	9.998	10.167
1	5.869	6.032	6.194	6.357	6.519	6.682	6.844	7.007	7.169	7.332	7.494	7.657	7.819	7.982	8.144	8.307	8.469	8.632	8.794	8.957	9.119	9.282	9.444	9.607	9.769
2	5.648	5.805	5.961	6.117	6.274	6.430	6.586	6.743	6.899	7.055	7.212	7.368	7.525	7.681	7.837	7.994	8.150	8.306	8.463	8.619	8.776	8.932	9.088	9.245	9.401
3	5.445	5.596	5.746	5.897	6.048	6.199	6.349	6.500	6.651	6.802	6.952	7.103	7.254	7.405	7.555	7.706	7.857	8.008	8.158	8.309	8.460	8.611	8.761	8.912	9.063
4	5.252	5.398	5.543	5.689	5.834	5.979	6.125	6.270	6.416	6.561	6.706	6.852	6.997	7.143	7.288	7.434	7.579	7.724	7.870	8.015	8.161	8.306	8.451	8.597	8.742
5	5.078	5.218	5.359	5.499	5.640	5.781	5.921	6.062	6.202	6.343	6.483	6.624	6.765	6.905	7.046	7.186	7.327	7.467	7.608	7.749	7.889	8.030	8.170	8.311	8.451
6	4.910	5.046	5.182	5.318	5.454	5.590	5.726	5.862	5.998	6.133	6.269	6.405	6.541	6.677	6.813	6.949	7.085	7.221	7.357	7.493	7.629	7.765	7.901	8.037	8.173
7	4.746	4.877	5.009	5.140	5.272	5.403	5.534	5.666	5.797	5.929	6.060	6.191	6.323	6.454	6.586	6.717	6.848	6.980	7.111	7.243	7.374	7.505	7.637	7.768	7.900
8	4.571	4.698	4.824	4.951	5.078	5.204	5.331	5.457	5.584	5.710	5.837	5.963	6.090	6.217	6.343	6.470	6.596	6.723	6.849	6.976	7.102	7.229	7.356	7.482	7.609
9	4.411	4.533	4.655	4.777	4.899	5.021	5.144	5.266	5.388	5.510	5.632	5.754	5.876	5.998	6.120	6.243	6.365	6.487	6.609	6.731	6.853	6.975	7.097	7.220	7.342
10	4.258	4.375	4.493	4.611	4.729	4.847	4.965	5.083	5.200	5.318	5.436	5.554	5.672	5.790	5.908	6.026	6.143	6.261	6.379	6.497	6.615	6.733	6.851	6.969	7.086
11	4.115	4.229	4.343	4.457	4.571	4.684	4.798	4.912	5.026	5.140	5.254	5.368	5.482	5.596	5.710	5.824	5.938	6.052	6.165	6.279	6.393	6.507	6.621	6.735	6.849
12	3.983	4.093	4.203	4.314	4.424	4.534	4.645	4.755	4.865	4.975	5.086	5.196	5.306	5.416	5.527	5.637	5.747	5.858	5.968	6.078	6.188	6.299	6.409	6.519	6.629
13	3.862	3.969	4.076	4.182	4.289	4.396	4.503	4.610	4.717	4.824	4.931	5.038	5.145	5.252	5.358	5.465	5.572	5.679	5.786	5.893	6.000	6.107	6.214	6.321	6.428
14	3.744	3.848	3.951	4.055	4.159	4.262	4.366	4.470	4.573	4.677	4.781	4.884	4.988	5.092	5.195	5.299	5.403	5.506	5.610	5.713	5.817	5.921	6.024	6.128	6.232
15	3.633	3.734	3.835	3.935	4.036	4.136	4.237	4.338	4.438	4.539	4.639	4.740	4.841	4.941	5.042	5.142	5.243	5.344	5.444	5.545	5.645	5.746	5.847	5.947	6.048
16	3.512	3.610	3.707	3.804	3.901	3.998	4.096	4.193	4.290	4.387	4.485	4.582	4.679	4.776	4.874	4.971	5.068	5.165	5.263	5.360	5.457	5.554	5.652	5.749	5.846
17	3.409	3.503	3.598	3.692	3.786	3.881	3.975	4.069	4.164	4.258	4.353	4.447	4.541	4.636	4.730	4.824	4.919	5.013	5.108	5.202	5.296	5.391	5.485	5.580	5.674
18	3.309	3.401	3.492	3.584	3.675	3.767	3.859	3.950	4.042	4.134	4.225	4.317	4.408	4.500	4.592	4.683	4.775	4.866	4.958	5.050	5.141	5.233	5.324	5.416	5.508
19	3.216	3.305	3.394	3.483	3.572	3.662	3.751	3.840	3.929	4.018	4.107	4.196	4.285	4.374	4.463	4.552	4.641	4.730	4.819	4.908	4.997	5.086	5.175	5.264	5.353
20	3.131	3.217	3.304	3.391	3.477	3.564	3.651	3.737	3.824	3.911	3.997	4.084	4.171	4.258	4.344	4.431	4.518	4.604	4.691	4.778	4.864	4.951	5.038	5.124	5.211
21	3.045	3.129	3.214	3.298	3.382	3.467	3.551	3.635	3.720	3.804	3.888	3.973	4.057	4.141	4.225	4.310	4.394	4.478	4.563	4.647	4.731	4.816	4.900	4.984	5.069
22	2.956	3.038	3.120	3.202	3.283	3.365	3.447	3.529	3.611	3.693	3.774	3.856	3.938	4.020	4.102	4.184	4.265	4.347	4.429	4.511	4.593	4.675	4.756	4.838	4.920
23	2.867	2.946	3.026	3.105	3.184	3.264	3.343	3.422	3.502	3.581	3.661	3.740	3.819	3.899	3.978	4.057	4.137	4.216	4.296	4.375	4.454	4.534	4.613	4.692	4.772
24	2.785	2.862	2.939	3.016	3.093	3.170	3.247	3.325	3.402	3.479	3.556	3.633	3.710	3.787	3.864	3.941	4.018	4.096	4.173	4.250	4.327	4.404	4.481	4.558	4.635
25	2.706	2.781	2.856	2.931	3.006	3.081	3.156	3.231	3.306	3.381	3.456	3.531	3.606	3.680	3.755	3.830	3.905	3.980	4.055	4.130	4.205	4.280	4.355	4.430	4.505