

Tungsten vs. Tungsten-26% Rhenium - Type G*

Temperature in Degrees F

Reference Junction at 32°F

DEGREES F	0°	20°	40°	60°	80°	DEGREES F	0°	20°	40°	60°	80°
0°	-0.16	-0.07	0.006	0.026	0.050	2200°	18.701	18.936	19.170	19.405	19.639
100°	0.079	0.113	0.153	0.197	0.246	2300°	19.873	20.106	20.340	20.573	20.806
200°	0.299	0.357	0.420	0.487	0.559	2400°	21.038	21.270	21.502	21.734	21.965
300°	0.634	0.714	0.799	0.887	0.979	2500°	22.195	22.425	22.655	22.884	23.113
400°	1.075	1.175	1.279	1.387	1.498	2600°	23.341	23.569	23.796	24.023	24.249
500°	1.613	1.731	1.853	1.978	2.106	2700°	24.474	24.699	24.923	25.146	25.369
600°	2.238	2.373	2.511	2.652	2.796	2800°	25.591	25.812	26.033	26.253	26.472
700°	2.943	3.093	3.246	3.401	3.559	2900°	26.690	26.907	27.124	27.340	27.555
800°	3.720	3.884	4.049	4.218	4.389	3000°	27.769	27.983	28.195	28.407	28.618
900°	4.562	4.737	4.915	5.095	5.277	3100°	28.827	29.036	29.244	29.451	29.657
1000°	5.461	5.647	5.836	6.026	6.218	3200°	29.862	30.066	30.269	30.471	30.672
1100°	6.412	6.607	6.805	7.004	7.205	3300°	30.871	31.070	31.268	31.464	31.660
1200°	7.407	7.611	7.816	8.023	8.232	3400°	31.854	32.047	32.240	32.430	32.620
1300°	8.441	8.652	8.865	9.078	9.293	3500°	32.809	32.996	33.182	33.367	33.551
1400°	9.509	9.726	9.945	10.164	10.384	3600°	33.733	33.914	34.094	34.273	34.450
1500°	10.606	10.828	11.051	11.275	11.500	3700°	34.626	34.801	34.974	35.146	35.317
1600°	11.725	11.952	12.179	12.407	12.635	3800°	35.486	35.654	35.821	35.986	36.150
1700°	12.864	13.094	13.324	13.555	13.786	3900°	36.312	36.473	36.632	36.790	36.946
1800°	14.018	14.250	14.482	14.715	14.948	4000°	37.101	37.254	37.406	37.557	37.705
1900°	15.182	15.415	15.649	15.884	16.118	4100°	37.853	37.998	38.142	38.285	38.425
2000°	16.353	16.587	16.822	17.057	17.292	4200°	38.564				
2100°	17.527	17.762	17.997	18.232	18.467						

Adopted March 4, 1974

Tungsten-5% Rhenium vs. Tungsten-26% Rhenium - Type C*

Temperature in Degrees F

Reference Junction at 32°F

DEGREES F	0°	20°	40°	60°	80°	DEGREES F	0°	20°	40°	60°	80°
0°	-0.234	-0.089	0.059	0.211	0.365	2200°	21.896	22.087	22.277	22.466	22.655
100°	0.522	0.682	0.845	1.010	1.178	2300°	22.843	23.030	23.217	23.403	23.588
200°	1.348	1.520	1.695	1.872	2.051	2400°	23.772	23.956	24.138	24.320	24.502
300°	2.232	2.415	2.600	2.786	2.975	2500°	24.682	24.862	25.041	25.219	25.397
400°	3.165	3.357	3.551	3.746	3.942	2600°	25.574	25.750	25.925	26.100	26.274
500°	4.140	4.339	4.540	4.742	4.945	2700°	26.447	26.619	26.791	26.962	27.132
600°	5.149	5.354	5.560	5.767	5.975	2800°	27.301	27.470	27.637	27.805	27.971
700°	6.184	6.394	6.604	6.815	7.027	2900°	28.137	28.301	28.466	28.629	28.791
800°	7.240	7.453	7.667	7.881	8.095	3000°	28.953	29.114	29.275	29.434	29.593
900°	8.310	8.526	8.741	8.957	9.174	3100°	29.751	29.908	30.065	30.221	30.376
1000°	9.390	9.607	9.824	10.041	10.258	3200°	30.530	30.683	30.836	30.988	31.139
1100°	10.475	10.693	10.910	11.127	11.344	3300°	31.289	31.438	31.587	31.735	31.882
1200°	11.561	11.778	11.995	12.212	12.429	3400°	32.028	32.173	32.318	32.461	32.604
1300°	12.645	12.861	13.077	13.292	13.508	3500°	32.746	32.887	33.027	33.166	33.305
1400°	13.723	13.937	14.152	14.366	14.579	3600°	33.442	33.579	33.714	33.849	33.982
1500°	14.792	15.005	15.217	15.429	15.640	3700°	34.115	34.247	34.378	34.507	34.636
1600°	15.851	16.062	16.271	16.481	16.689	3800°	34.763	34.890	35.015	35.140	35.263
1700°	16.898	17.105	17.312	17.519	17.725	3900°	35.385	35.506	35.626	35.744	35.862
1800°	17.930	18.134	18.339	18.542	18.745	4000°	35.978	36.093	36.206	36.319	36.430
1900°	18.947	19.148	19.349	19.549	19.748	4100°	36.539	36.647	36.754	36.860	36.964
2000°	19.947	20.145	20.343	20.539	20.735	4200°	37.066				
2100°	20.930	21.125	21.319	21.512	21.704						

Adopted March 4, 1974

Tungsten-3% Rhenium vs. Tungsten-25% Rhenium - Type D*

Temperature in Degrees F

Reference Junction at 32°F

DEGREES F	0°	20°	40°	60°	80°	DEGREES F	0°	20°	40°	60°	80°
0°	-1.163	-0.663	0.043	0.154	0.269	2200°	22.228	22.440	22.651	22.863	23.073
100°	0.390	0.515	0.644	0.778	0.916	2300°	23.283	23.492	23.701	23.909	24.116
200°	1.058	1.204	1.354	1.507	1.664	2400°	24.323	24.529	24.735	24.940	25.145
300°	1.824	1.988	2.154	2.324	2.497	2500°	25.348	25.551	25.754	25.956	26.157
400°	2.673	2.851	3.032	3.216	3.402	2600°	26.358	26.558	26.757	26.956	27.154
500°	3.590	3.781	3.973	4.168	4.365	2700°	27.352	27.548	27.745	27.940	28.135
600°	4.564	4.765	4.967	5.171	5.377	2800°	28.329	28.523	28.715	28.908	29.099
700°	5.584	5.793	6.003	6.214	6.427	2900°	29.290	29.480	29.669	29.858	30.046
800°	6.640	6.855	7.071	7.288	7.506	3000°	30.233	30.419	30.605	30.790	30.974
900°	7.725	7.945	8.165	8.386	8.608	3100°	31.158	31.340	31.522	31.703	31.884
1000°	8.830	9.053	9.277	9.501	9.726	3200°	32.063	32.242	32.420	32.596	32.772
1100°	9.951	10.176	10.402	10.628	10.854	3300°	32.948	33.122	33.295	33.467	33.639
1200°	11.080	11.307	11.534	11.761	11.988	3400°	33.809	33.979	34.147	34.314	34.481
1300°	12.215	12.443	12.670	12.897	13.125	3500°	34.646	34.810	34.973	35.135	35.295
1400°	13.352	13.579	13.807	14.034	14.262	3600°	35.455	35.613	35.770	35.926	36.080
1500°	14.489	14.717	14.944	15.171	15.398	3700°	36.233	36.384	36.535	36.683	36.831
1600°	15.624	15.850	16.076	16.302	16.527	3800°	36.976	37.120	37.263	37.404	37.543
1700°	16.752	16.976	17.200	17.424	17.647	3900°	37.681	37.816	37.950	38.082	38.213
1800°	17.870	18.093	18.315	18.537	18.758	4000°	38.341	38.467	38.591	38.714	38.834
1900°	18.979	19.199	19.419	19.638	19.857	4100°	38.951	39.067	39.180	39.291	39.400
2000°	20.075	20.293	20.510	20.726	20.943	4200°	39.506				
2100°	21.158	21.373	21.588	21.802	22.015						

Adopted March 4, 1974

*Not an ANSI designation



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