

UNITED STATES DEPARTMENT OF COMMERCE
WASHINGTON

National Bureau of Standards

Certificate

STANDARD THERMOELECTRIC SAMPLE 119

CHROMEL P

The following table gives the thermal electromotive forces of this sample of Chromel P against the National Bureau of Standards platinum standard Pt 27, corresponding to the temperatures of the hot junction when the cold junctions are at 0° C (32° F).

Electromotive Force *versus* Temperature

Degrees Centigrade	International Millivolts	Degrees Fahrenheit	International Millivolts
0	0.00	0	-0.45
25	0.66	32	0.00
100	2.81	75	+0.63
200	5.98	200	2.61
300	9.33	400	6.13
400	12.77	600	9.86
500	16.21	800	13.69
600	19.61	1,000	17.50
700	22.94	1,200	21.25
800	26.19	1,400	24.90
900	29.37	1,600	28.46
1,000	32.47	1,800	31.92
1,100	35.50	2,000	35.30
1,200	38.46	2,200	38.59
1,300	41.30	2,400	41.74

The above values apply only when the wire is heated in an oxidizing atmosphere and are accurate to ± 0.04 millivolt when the wire is heated to the corresponding temperatures for the first time. However, the above accuracy may still be attained or closely approximated in later use if the depth of immersion is increased each time the wire is used.

For further information consult National Bureau of Standards Research Papers RP767 and RP768.

LYMAN J. BRIGGS,
Director.

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