

Alloys : Ni

Characteristic

Outstanding performance on corrosion.

Temperature coefficient of resistor is high .

Suitable for measuring device, temperature compensation application

Alloys	Electrical Resistivity [$\mu\Omega\text{m}$]	Average TCR [$\times 10^{-6}/^{\circ}\text{C}$]
Ni	*0.095	*4,500

JIS Alloy	JIS Code	Thermal Expansion coefficient $\times 10^{-6}/^{\circ}\text{C}$	Density g/cm^3 (20°C)	Melting Point $^{\circ}\text{C}$	Max Operating Temperature $^{\circ}\text{C}$
NW2200	Ni99.0	15	8.9	1400	400

Chemical Composition	C	Si	Mn	Ni+Co	Cu	Fe	S
(%)	≤ 0.15	≤ 0.3	≤ 0.3	≥ 99	≤ 0.2	≤ 0.4	≤ 0.01

Alloys	Type	Diameter (mm)	
NiW	Wire	$\phi 6.00 \sim 0.02$	
NiR	Ribbon	$t=2.90 \sim 0.05$	$w=40 \sim 0.4$
NiP	Plate	Please consult	
Ni	Foil	$t=0.40 \sim 0.02$	$w=120 \sim 5$

Pure Nickel Wire **[Resistance • Length • Weight]**

Alloys NiW	Resistivity (23°C μΩm) 0.095±0.015
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Diameter (mm)	Tolerance (mm)	Cross section (mm ²)	Resistance Tolerance (%)	DC Resistance (Ω/m)	Length (m/Kg)	Weight (g/m)
6.00	±0.080	28.27	±5	0.00336	3.97	252
5.50	±0.080	23.76	±5	0.00400	4.73	211
5.00	±0.080	19.64	±5	0.00484	5.72	175
4.50	±0.080	15.90	±5	0.00597	7.06	142
4.00	±0.080	12.57	±5	0.00756	8.94	112
3.50	±0.080	9.621	±6	0.00987	11.7	85.6
3.20	±0.060	8.042	±6	0.0118	14.0	71.6
2.90	±0.060	6.605	±6	0.0144	17.0	58.8
2.60	±0.060	5.309	±6	0.0179	21.2	47.3
2.30	±0.050	4.155	±6	0.0229	27.0	37.0
2.00	±0.050	3.142	±6	0.0302	35.8	28.0
1.80	±0.050	2.545	±6	0.0373	44.2	22.6
1.60	±0.040	2.011	±7	0.0472	55.9	17.9
1.50	±0.040	1.767	±7	0.0538	63.6	15.7
1.40	±0.040	1.539	±7	0.0617	73.0	13.7
1.30	±0.040	1.327	±7	0.0716	84.7	11.8
1.20	±0.040	1.131	±7	0.0840	99.3	10.1
1.10	±0.030	0.9503	±7	0.100	118	8.46
1.00	±0.030	0.7854	±7	0.121	143	6.99
0.90	±0.030	0.6362	±7	0.149	177	5.66
0.85	±0.030	0.5675	±7	0.167	198	5.05
0.80	±0.030	0.5027	±7	0.189	224	4.47
0.75	±0.025	0.4418	±7	0.215	254	3.93
0.70	±0.025	0.3848	±7	0.247	292	3.43
0.65	±0.025	0.3318	±7	0.286	339	2.95
0.60	±0.025	0.2827	±7	0.336	397	2.52
0.55	±0.020	0.2376	±8	0.400	473	2.11
0.50	±0.020	0.1964	±8	0.484	572	1.75
0.45	±0.020	0.1590	±8	0.597	706	1.42
0.40	±0.015	0.1257	±8	0.756	894	1.12

