



Brand Name	JNL					
Material	Pure nickel					
Code	Ni 99.7					
Chemical composition (max) %						
Ni	Fe	Cu	Mn	C	Si	S
99.7	0.08	0.01	0.01	0.05	0.03	0.001

Form of Delivery

JNL is supplied in the form of wires with dimensions from 0.02 to 8mm diameter in bare condition. Enamelled wires are available in dimensions 0.05-1.5mm. JNL can also supply in form of stranded wire, ribbon, flat wire and rods.

Physical Characteristics (Reference Values)

Density		Melting Point °C	Resistivity 20 °C Ω mm ² /m	coefficient of expansion		tensile strength Mpa	Elongation %				
g/cm ³	lb/cub in			100 °C	400 °C		10 ⁻⁶ /K	10 ⁻⁶ /K	Ø0.02-0.063	Ø0.063-0.125	Ø0.125-0.5
8.9	0.32	1450	0,075	13,00	14,00	>400	≈10	≈15	≈18	≈25	>30

Diameter		Weight g/km	Resistance Ω/m 20 °C	Diameter		Weight kg/km	Resistance Ω/m 20 °C
mm	Tolerance			mm	Tolerance		
0.03	±0.0015	6.29	108	0.45	±0.015	1.4	0.48
0.04	±0.002	11.18	60.91	0.50	±0.015	1.7	0.39
0.05	±0.002	17.47	38.98	0.55	±0.03	2.1	0.32
0.06	±0.0025	25.15	27.07	0.60	±0.03	2.5	0.27
0.07	±0.0025	34.23	19.89	0.65	±0.03	3.0	0.23
0.08	±0.003	44.71	15.23	0.70	±0.03	3.4	0.20
0.09	±0.003	56.59	12.03	0.75	±0.03	3.9	0.17
0.10	±0.003	69.87	9.75	0.80	±0.03	4.5	0.15
0.11	±0.004	84.54	8.05	0.85	±0.03	5.0	0.13
0.12	±0.004	101	6.77	0.90	±0.03	5.7	0.12
0.13	±0.004	118	5.77	1.00	±0.03	7.0	0.10
0.14	±0.004	137	4.97	1.10	±0.04	8.5	0.08
0.15	±0.005	157	4.33	1.20	±0.04	10.1	0.07
0.16	±0.005	179	3.81	1.30	±0.04	11.8	0.06
0.17	±0.005	202	3.37	1.40	±0.05	13.7	0.05
0.18	±0.005	226	3.01	1.50	±0.05	15.7	0.04
0.19	±0.005	252	2.70	1.60	±0.05	17.9	0.038
0.20	±0.006	279	2.44	1.70	±0.05	20.2	0.033
0.22	±0.006	338	2.01	1.80	±0.06	22.6	0.030
0.25	±0.006	437	1.56	1.90	±0.06	25.2	0.027
0.28	±0.007	548	1.24	2.00	±0.06	27.9	0.024
0.30	±0.007	629	1.08	2.10	±0.06	30.8	0.022
0.32	±0.01	715	0.95	2.20	±0.06	33.8	0.020
0.35	±0.01	856	0.80	2.30	±0.06	37.0	0.018
0.38	±0.01	1009	0.67	2.40	±0.06	40.2	0.017
0.40	±0.01	1118	0.61	2.50	±0.06	43.7	0.015

Nickel tape/ foil

Thickness (mm)	Tolerance (mm)	Width tolerance (mm)		weight/coil (kg)
0.01~0.03	±0.003	2~15 (±0.05)	5~220 (±0.1)	according to customers request
>0.03~0.05	±0.003			
>0.05~0.09	±0.005			
>0.09~0.15	±0.007			
>0.15~0.3	±0.010			
>0.3~0.45	±0.015			
>0.45~0.55	±0.020			
>0.55~0.85	±0.025			
>0.85~0.95	±0.030			
>0.95~1.2	±0.035			
>1.2~1.4	±0.040			
>1.4~1.7	±0.050			
>1.7~2.0	±0.060			
>2.0~4.0	±0.080			



Thickness(mm)	width (mm)	Treatment	Hardness (HV)	Tensile strength (Mpa)	Elongation %	Bends times
0,01 ~ 4,00	2,0-220	H	≥ 190	≥ 540	≥ 2	≥ 5
		1/2H	150-190	≥ 494	≥ 9	≥ 5
		1/4H	110-150	≥ 442	≥ 14	≥ 5
		M	75-110	≥ 392	≥ 20	≥ 5

Chemical composition%							
Grade	Ni+Co	Cu	Fe	Mn	C	Si	S
Ni201	≥ 99.9	≤ 0.015	≤ 0.04	≤ 0.02	≤ 0.01	≤ 0.03	≤ 0.001
Ni200	≥ 99.6	≤ 0.06	≤ 0.10	≤ 0.05	≤ 0.10	≤ 0.10	≤ 0.005

Density	Melting Point	Resistivity	Conductivity	Thermal conductivity	Specific heat	Curie temperature
8.89g/cm ³	1435-1446°C	7.63microhm. cm(20°C)	22.6% IACS	0.61(100°C) cal/cm.sec.°C	0.109(20°C) cal/g/°C	360 °C

Copper tape /foil

Thickness (mm)	Copper code	Treatment	Tensile strength (Mpa)	Elongation (%)	Hardness HV
≥0.01	T2, TP2	M	≥205	≥30	-
		Y4	215~275	≥25	55~100
		Y2	245~345	≥8	75~120
		Y	≥295	≥3	≥80

Copper code						
Chinese	(ISO)	(ASTM)	(JIS)	(BIS)	(DIN)	ГОСТ
T2	Cu-ETP	C11000	C1100	C101	R-Cu57	M1φ
TP2	Cu-DHP	C12200	C1220	C106	SF-Cu	M1φ

