

Thermocouple & Electric Resistance materials

Furukawa Techno Material
2E-GISI-12-24

Strength of Furukawa

- Fully integrated production system with total quality control and 100% traceability.
- Manufacturing of wide variety of products, including low volume quantities to meet customer demand.
- Rich experience, excellent technical knowledge of melting and integrated processes.
- Customer support to evaluate customer needs and resolve technical issues.
- Proven, efficient, and reliable melting house capabilities.
- Customization with your specification or requirements.

【Melting & casting】 ⇒ 【Hot rolling】 ⇒ 【Cold drawing】 ⇒ 【Annealing】 ⇒ 【Inspection & packaging】



Thermocouple Alloys

Type	Thermocouple		Extension		Nominal Composition (%)								
	Standard Grade	Special Grade	Standard Grade	Special Grade	Symbol	Cr	Si	Al	Mn	Co	Cu	Ni	Fe
R	-	-	○	○	RPX	-	-	-	-	-	100	-	-
			*Compensating		RNX	-	-	-	-	-	-	Bal.	1.0
K	○	○	○	○	KP & KPX	9.5	0.5	-	-	-	-	Bal.	-
					KN & KNX	-	2.0	1.0	1.5	-	-	Bal.	-
E	○	○	○	○	EP & EPX	9.5	0.5	-	-	-	-	Bal.	-
					EN & ENX	-	-	-	1.0	-	55.0	43.0	-
T	○	○	○	○	TP & TPX	-	-	-	-	-	100	-	-
					TN & TNX	-	-	-	1.0	-	55.0	43.0	-

Electric Resistance Alloys

Type	Application	Volume Resistivity (μΩm)	成分 (%)		
			Ni	Mn	Cu
Cu-Ni alloy, CN49	Resistors (precision & general grade) Electrical measuring instruments (precision & general grade)	0.490 ± 0.030	43	0.5~2.5	Bal.
Cu-Ni alloy, CN5	Resistors (general grade) Resistance heating elements Shunt resistors	0.050 ± 0.0075	1	1.0	Bal.
Cu-Ni alloy, CN10		0.100 ± 0.012	5	1.0	Bal.
Cu-Ni alloy, CN15		0.150 ± 0.015	10	1.0	Bal.
Cu-Ni alloy, CN30		0.300 ± 0.024	24	<1.5	Bal.
Cu-Ni alloy, CM44	Resistors (standard grade) Electrical measuring instruments (precision & general grade)	0.440 ± 0.030	2	12	Bal.

Product Range

Thermocouple wires, Cu-Ni wires	0.1~4.80 mm
Rod	2.0~8.5 x 1000~2000 mm L
Ribbon	Thickness 0.1~2.0, Width 1.0~6.0mm

Packaging

[Coil]	Wire dia. (mm)	Coil, inner dia. (mm)
	3.2~4.8	550
	1.0~2.3	250, 300, 400

Spool type	Wire dia. (mm)	Std. Qty. per spool (kg)	D (mm)	d (mm)	W (mm)	a (mm)	h (mm)
PD-45	0.65~1.29	45	440	290	195	15	50
P-30	0.32~1.00	25	300	130	130	15	30
P-10	0.2~0.32	10	200	90	110	12	25
P-5	0.1~0.32	5	160	70	90	12	20
P-3	0.1~0.32	3	130	60	90	10	20
P-1	0.1~0.32	1	100	50	70	10	16

