

## Scott Precision Wire Ltd – Alloy Summary

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Material	Nominal Composition					Resistivity $\mu\Omega\cdot\text{cm}$	Density $\text{g/cm}^3$	Temp. Coeff. of Resistance 20°C - 100°C 1/°C	Primary Use	Raw Mat. Availability
	Ni	Cr	Fe	Cu	Others					
	%	%	%	%						
<b>Resistance Alloys</b>										
Cromaloy 4	20	25	51		Si,Mn	95	7.8	0.0005	High temp. heating	*
Cromaloy 3	37	18	45			104	7.8	0.0004	High temp. heating	Stock
Cromaloy 3020	30	20	50			104	7.8	0.0004	High temp. heating	Stock
Cromaloy 5	80	20				109	8.3	0.0001	High temp. heating	Stock
Cromaloy 1	60	16	24			111	8.2	0.00016	High temp. heating	Stock
Cromaloy A		22	73		Al	135	7.25	0.00005	High temp. heating	Stock
Cromaloy O		20	75		Al	144	7.1	0.00004	High temp. heating	*
Cu/Ni 98/02	2			98		5	8.9	0.0013	Medium temp. heating	Stock
Cu/Ni 94/06	6			94		10	8.9	0.0007	Medium temp. heating	Stock
Cu/Ni 90/10	10			90	Mn	15	8.9	0.0004	Medium temp. heating	Stock
Cu/Ni 85/15	15			85	Mn	21	8.9	0.00035	Medium temp. heating	Stock
Cu/Ni 80/20	20 (23)			80	Mn	30	8.9	0.00024	Medium temp. heating	Stock
Constantan	44			55	Mn	49	8.9	0.00004	Medium temp. heating	Stock
Kutherm 3				99	Sn	3	8.9	0.0022	Low temp. heating	Stock
Kutherm 10				95	Sn	10.2	8.85	0.00079	Medium temp. heating	Stock
CuZn 95/05				95	Zn	3.15	8.9	0.0035	Medium temp. heating	Stock
CuZn 90/10				90	Zn	4	8.9	0.003	Medium temp. heating	*
CuZn 80/20				80	Zn	5.3	8.9	0.0025	Medium temp. heating	Stock
CuZn 70/30				70	Zn	6	8.9	0.002	Low temp. heating	*
CuZn 64/36				64	Zn	6.75	8.9	0.0015	Low temp. heating	Stock
NiFe 70/30	70		30			21	8.45	0.0044	Medium temp. heating	Stock
NiFe 52/48	52		48			37	8.2	0.0041	Medium temp. heating	Stock
Al1050					Al	2.8	2.7	0.004	Low temp. heating	*
AlMg05					Al, Mg	5.9	2.7	0.004	Low temp. heating	*
Nickel 205	>99.6					9	8.9	0.005	Power leads & low temp heating	Stock
2% MnNi	98				Mn	10.9	8.81	0.0045	Power leads & low temp heating	Stock
Copper				>99.9		1.73	8.9	0.00393	Low temp. heating	Stock
Stainless Steel	9	19	70		Mn, Si	70	7.93	0.001	Medium temp. heating	Stock
Cupronic 2.5	0.5			99.5		2.5	8.9	0.003	Low temp. heating	*
<b>Thermocouple Alloys</b>										
Nicro	90	10				70	8.72	0.0003	KP, KPX, EP, EPX	Stock
Nial	94				Mn, Al	29	8.6	0.0019	KN, KNX	Stock
Iron			>99.5			12.5	7.86	0.006	JP, JPX	Stock
Constantan	44			56		49	8.9	0.00004	JN, JNX, T/EN, T/ENX, KNCB	Stock
Copper				>99.9		1.73	8.9	0.00393	TP, TPX, KPCB, RPCA	Stock
Cupronic 12	3			95	Mn	12	8.9	0.0015	RNCA/B, SNCA/B	Stock
CuMn03				97	Mn	12.5	8.8	0.003	BPX	*
Nicosil	84	14			Si	95.5	8.5	0.00009	NP, NPX	Stock
Nisil	96				Si	36.2	8.7	0.00068	NN, NNX	Stock

\* Raw Material subject to minimum quantity

(All values are nominal or typical values and are believed to be correct at the time of issue. No warranty is given or is to be implied from the details above. Specifications should be confirmed at the time of order.)