

Cupronic 12

Cupronic 12 is a specially developed alloy of Copper and Nickel which, when used with Pure Copper, forms a thermocouple compensating material with thermal e.m.f characteristics similar to Platinum Rhodium 10% (S) and 13% (R).

E.m.f.

Material is normally produced to provide an e.m.f. to BS EN 60584-1 1996, Type R or S with tolerances to BS 4937, Part 30 1993. International and other national specifications are available on request.

Physical and Mechanical Properties

	Units	
Nominal composition	%	Cu 95 Ni 3 Mn 2
Density at 20°C	g/cm ³	8.9
Resistivity at 20°C	μΩcm	12
Temperature Coefficient of Resistance, 20 – 100°C	1/K	0.003
Coefficient of thermal expansion, 20 – 100°C	1/K	18 x 10 ⁻⁶
Melting point (approx.)	°C	1080

The figures given in this table represent nominal or typical values.

Information contained within this technical data sheet is based upon the general experience of IMI Scott Ltd and is believed to be correct at the time of issue. No warranty is given or is to be implied from the details above. Customers are advised to carry out independent tests in order to determine the suitability of any IMI Scott Ltd product for an application.