

Resistance Alloy 180

180 Ohm, CuNi23Mn

Identification				
VMI No.	180 Ohm			
UNS No.	C71100			
Relevant Specifications	ASTM B122, ASTM B151			
Similar to	Resistance Alloy 180, NICAL 23R, CNR77/23, sim			
Forms	Strip	Wire	Bar	Sheet
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Description	Low ohm electrical resistance alloy.			
Chemical Composition (%)				
Copper	77 Nominal			
Nickel	23 Nominal			
Mechanical Properties <small>(all values are for annealed temper; not intended for specification)</small>				
Tensile	55 ksi			
	380 MPa			
Yield	24 ksi			
	165 MPa			
Elongation	35 % in 2"			
	35 % in 50mm			
Hardness	56 HRB			
	100 Hv			
Physical Properties				
Density	0.3226 lb/in ³			
	8.930 g/cm ³			
Resistivity (Nominal)	180 Ohm•circ mil/ft			
	30 microOhm•cm			
Coefficient of Thermal Expansion from 68°F (20°C) to	212°F	392°F	572°F	752°F
	100°C	200°C	300°C	400°C
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	(micro-in/in-°F)			
	(micro-m/m-K)			



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