

## Basic Properties of Conductors Materials

Specifications	Hard Aluminium wire (1350-H19)	Commercial hard copper wire	IACS	Steel zinc coated wire for core of aluminium cable
Density at 20°C (g/cm <sup>3</sup> )	2,705	8,89	8,89	7,78
Minimum conductivity at 20°C (%IACS)	61,0	97,0	100,0	-
Maximum resistivity at 20°C (Ω.mm <sup>2</sup> /m)	0,028264	0,017775	0,017241	-
Ratio of weight for equal DC resistance and length	0,50	1,03	1,00	-
Temperature coefficient of resistance per degree at 20°C	0,00403	0,00381	0,00393	-
Coefficient of thermal linear expansion per °C	0,000023	0,00001692	0,00001692	0,00001152
Specific heat (cal/g°C)	0,214	-	0,0921	-
Thermal conductivity (cal/cm.s.°C)	0,485	-	0,930	0,150
Modulus of elasticity of solid wire (kgf/mm <sup>2</sup> )	7.000	12.000	-	20.000