

Iron/Nickel Alloy Rod (Fe52/Ni48)

Formula: Fe52/Ni48

Diameter: 6.35mm

Length: 100mm

Temper: Annealed

UOM Code: 943-035-59

SKU: 1000108121-group

Product Code: FF01-RD-000163

Material Properties for Alloys

Mechanical Properties

Element	Value
Elongation at break(%)	30
Modulus of elasticity(GPa)	248
Tensile strength(MPa)	450-550

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	49
Temperature coefficient(K^{-1})	-

Thermal Properties

Element	Value
Maximum use temperature in air(C)	450
Melting point(C)	1450
Specific heat($\text{J K}^{-1} \text{kg}^{-1}$)	502@23°C
Thermal conductivity($\text{W m}^{-1} \text{K}^{-1}$)	16.7@23°C
Coefficient of thermal expansion($\times 10^{-6} \text{K}^{-1}$)	8.5@20-100°C

Physical Properties

Element	Value
Density(gcm^{-3})	8.2