

Nickel/Iron Alloy Rod (Ni80/Fe20)

Formula: Ni80/Fe20

Diameter: 10mm

Length: 200mm

Temper: As Drawn

UOM Code: 024-538-79

SKU: 1000002889-group

Product Code: NI29-RD-000130

Material Properties for Alloys

Magnetic Properties

Element	Value
Initial permeability	30000
Maximum permeability	400000
Coercivity (Hc)(A m ⁻¹)	0.02
Curie temperature(C)	460
Saturation flux density(T)	0.77

Mechanical Properties

Element	Value
Elongation at break(%)	38
Tensile strength(MPa)	930

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	62
Temperature coefficient(K ⁻¹)	-

Thermal Properties

Element	Value
Melting point(C)	1445
Thermal conductivity(W m ⁻¹ K ⁻¹)	34.6@23°C

Element	Value
Coefficient of thermal expansion($\times 10^{-6} \text{ K}^{-1}$)	12.9@20-100°C