

Iron/Nickel Alloy Coil (Fe55/Ni45)

Formula: Fe55/Ni45

Thickness: 0.1mm

Coil Width: 150mm

Length: 1m

UOM Code: 363-304-87

SKU: 1000098803-group

Product Code: FE18-FL-000100

Material Properties for Alloys

Magnetic Properties

Element	Value
Initial permeability	6000
Maximum permeability	40000
Coercivity (Hc)(A m ⁻¹)	8
Curie temperature(C)	450
Remanence from saturation (Brem)(T)	1
Saturation Induction(T)	1.6

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	45
Temperature coefficient(K ⁻¹)	-

Thermal Properties

Element	Value
Melting point(C)	1400-1450
Specific heat(J K ⁻¹ kg ⁻¹)	460@23°C
Thermal conductivity(W m ⁻¹ K ⁻¹)	13@23°C
Coefficient of thermal expansion($\times 10^{-6}$ K ⁻¹)	7@20-100°C

Physical Properties

Element	Value
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Density(gcm ³)	8.25
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Mechanical Properties

Element	Value
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Hardness - Vickers(kgf mm ²)	240
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Tensile strength(MPa)	470
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