

Iron/Nickel Alloy Disk (Fe55/Ni45)

Formula: Fe55/Ni45

Thickness: 0.1mm

Diameter: 50mm

UOM Code: 093-505-35

SKU: 1000013216-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(x10 ⁻⁶ K ⁻¹)	7@20-100°C

Physical Properties

Element	Value
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Density(gcm³) 8.25

Mechanical Properties

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