



Introduction:

Permalloy are nickel-iron alloys that contain from about 45 to 81% of nickel. These alloys are used in applications requiring the following characteristics: high permeability, high saturation magnetostriction, low hysteresis-energy loss, low eddy-current loss in alternating flux, low Curie temperature, constant permeability with changing temperature.

Finishing:

Cold work
Annealed

Grade		Mu49	Mu80	Mu85
Chemistry		50NiFe	80Ni3MoFe	NiFe15Mo
Density g/cm ³		8.2	8.6	8.8
Curie Temp °C		500	450	400
Specific Resistance uΩ·m		0.45	0.55	0.56
Initial Permeability μ _i (mH/m)		3.5-5.0	25-44	38-68
Maximum Permeability μ _{max} (mH/m)		44-62.5	150-310	137-325
Coercivity H _c (A/M)		≅ 12	≅ 1.6	≅ 1.6
Saturation Induction B _s (T)		≅ 1.5	≅ 0.75	≅ 0.70
Tensile Strength MPa	Cold work	785	1030	1030
	Annealed	450	560	560
Yield Strength MPa	Cold work	685	980	980
	Annealed	150	150	150
Elongation %	Cold work	3	3	3
	Annealed	37	50	50
Hardness HV	Cold work	180	225	225
	Annealed	135	125	125

Size	
Wire	Min Ø 0.01 mm
Strip	0.01-1.0x100-400
Rod/Bar	Ø1.0-30mm
Other size available per request	