

Toshiba Materials offers various alloys containing nickel, copper, chromium and cobalt as the major ingredients. They are made into materials and components such as soft magnetic materials, heat-resistant and corrosion-resistant materials for electron tubes, electronic devices, lighting devices, electrodes, thermocouples and sheathed heaters to serve various fields from home appliances to nuclear power plants.

Soft Magnetic Materials



Toshiba Materials manufactures mainly nickel- and iron-based high-permeability alloys (Permalloy) and degaussing alloys. We offer them as components such as spiral cores, various transformer cores, magnetic shields, etc.

Standard Specification

Classification	Product name	Composition [wt%]	Electric resistivity [$\mu\Omega\cdot m$]	Magnetic properties				Hardness [HV]	Features	Applications
				μ_i	μ_m	Hc [A/m]	B [T]			
High-nickel alloy General	LPC (NPC)	Ni 81, Mo 5.5 Fe Bal.	0.60	70,000	150,000	0.8	0.71	130	Strain resistant	Magnetic head cores Magnetic shields Transformer cores
	GPC	Ni 81, Mo 6, Fe Bal.	0.60	80,000	180,000	0.8	0.68	130	High permeability Strain resistant	Magnetic head cores, Magnetic shields, Sensors, Transformer cores, Clad core metals
	UPC	Ni 77, Cu 5, Mo 4, Fe Bal.	0.55	70,000	150,000	0.8	0.72	120	JIS PC material	Magnetic head cores, Transformer cores
Medium- & low-nickel alloy	NFP	Ni 45, Fe Bal.	0.45	5,000	40,000	8.0	1.45	120	JIS PB material	Stators for clock motors, pole pieces, camera yokes
magnetic compensation alloy	SJK	Ni 30, Fe Bal.	0.80						Low Curie point	Temperature compensators in magnetic circuits