

NiCr(Fe) Resistance Heating Alloy

NiCr(Fe) alloy has higher strength under high temperature, but no brittleness after being cooled, excellent formability and weldability. It is suitable for use in industrial resistance furnaces of special requires, household electrical appliance and other electrical heaters. Also, it could be used as heating resistance material.

Type		Cr15Ni60	Cr20Ni35	Cr20Ni30
Chemical Composition %	Ni	55.0~61.0	34.0~37.0	30.0~34.0
	Cr	15.0~18.0	18.0~21.0	18.0~21.0
	Fe	Rest	Rest	Rest
Max. Working Temperature °C		1150	1100	1100
Melting Point °C≈		1390	1390	1390
Density g/cm ³		8.20	7.90	7.90
Resistivity uΩ.m,20°C		1.12 ± 0.05	1.04 ± 0.05	1.06 ± 0.05
Elongation %		≥20	≥20	≥20
Specific Heat J/g.°C		0.494	0.500	0.500
Thermal Conductivity KJ/m.h.°C		45.2	43.8	43.8
Linear Expansivity a×10 ⁻⁶ /°C(20~1000°C)		17.0	19.0	19.0
Microscopic Structure		Austenite	Austenite	Austenite
Magnetism		Non-magnetic	Low-magnetic	Low-magnetic