Iron-chromium-aluminium (FeCrAl) alloys

FeCrAl alloys are characterized by excellent oxidation resistance and very good form stability resulting in long element life. They are typically used in electrical heating elements in industrial furnaces and home appliances.

FeCrAl alloys have higher service temperature then NiCr Alloys and much lower prices. But they have lower stability and flexibility, easily to be fragile after a time circle.

Main grades and properties

Grades / Properties		**0Cr27A17Mo2**
Chemical composition %	Cr	26.5-27.8
	Al	6.0-7.0
	Fe	Balance
	Other	Mo1.8-2.2
Highest service temperature ℃		1400
ResistivityμΩ.m,20℃		1.53
Density (g/cm3)		7.10
Thermal conductivity KJ/m.h.℃		45.2
Coefficient of linear extensibility α×10-6/℃		16.0
Melting point ℃		1520
Tensile Mpa		680-830
Elongation %		>10
Reduction %		65-75
Hardness H.B.		200-260
Microstructure		Ferrite
Magnetic property		magnetic