Fe Cr Al (iron chromium aluminum) alloy electrical heating wire, resistance wire properties

Type		1Cr13Al4	0Cr25Al5	0Cr21Al6	0Cr23Al5	0Cr21Al4	0Cr21Al6Nb	0Cr27Al7Mo2
Chemical composition	Cr	12.0-15.0	23.0-26.0	19.0-22.0	22.5-24.5	18.0-21.0	21.0-23.0	26.5-27.8
	Al	4.0-6.0	4.5-6.5	5.0-7.0	4.2-5.0	3.0-4.2	5.0-7.0	6.0-7.0
	Re	opportune	opportune	opportune	opportune	opportune	opportune	opportune
	Fe	Rest	Rest	Rest	Rest	Rest	Rest	Rest
Maximal Temperature (°C)		650	1250	1250	1250	1100	1350	1400
Resistivity 20°C (10-6ohm*m)		1.25	1.42	1.42	1.35	1.23	1.45	1.53
Density(g/cm3)		7.4	7.1	7.16	7.25	7.35	7.1	7.1
Thermal conductivity (KJ/m*h*°C)		52.7	46.1	63.2	60.2	46.9	46.1	45.2
Extend strength (a*10-6/°C)		15.4	16	14.7	15	13.5	16	16
Melting point (°C)		1450	1500	1500	1500	1500	1510	1520
Tensile strength(N/mm2)		580-680	630-780	630-780	630-780	600-700	650-800	680-830
Percentage elongation (%))		>16	>12	>12	>12	>12	>12	>10
Section shrink rate(%)		65-75	60-75	65-75	65-75	65-75	65-75	65-75
curve strength(F/R)		>5	>5	>5	>5	>5	>5	>5
hardness (H.B.)		200-260	200-260	200-260	200-260	200-260	200-260	200-260
Microstructure		Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite
Magnetism		Magnetic	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic

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