

High performance Copper Corson Alloy

NKC8738

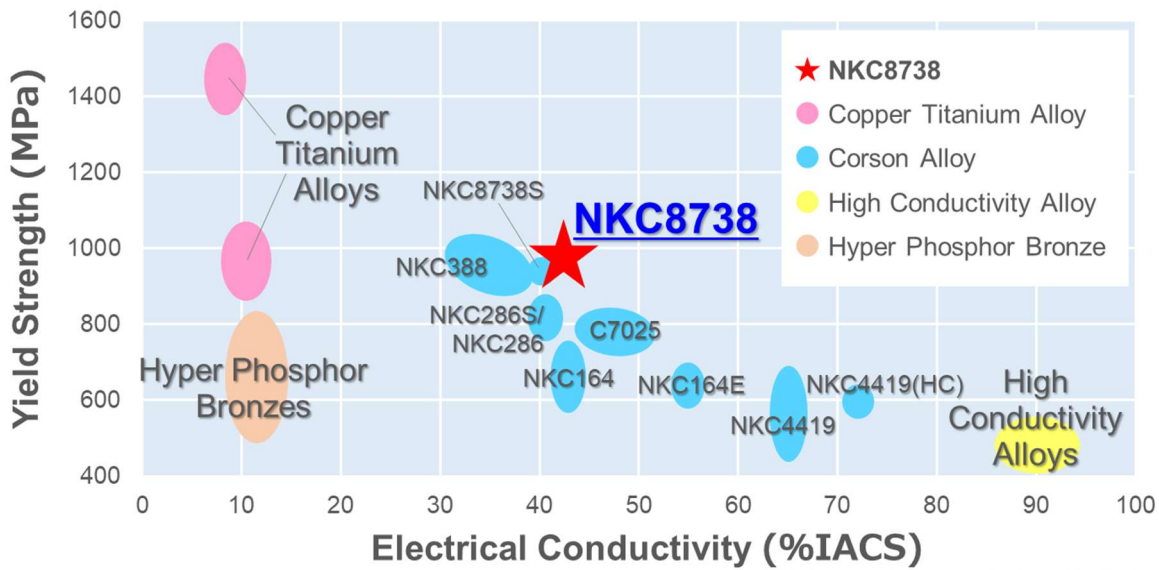
UNS C70390

※Data in this sheet are typical values (not specification).

Features

- NKC8738 is a Corson alloy with increased electrical conductivity while maintaining the strength of NKC388, our conventional high-strength Corson alloy.
This is our original alloy with an excellent balance of strength and conductivity.
- NKC8738 contributes to the miniaturization, high density, narrow pitch, and heat generation of electronic components such as connector terminals, CPU sockets, and lead frames.

Our Copper Alloy Lineup



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Material Properties

1. Chemical Composition

Element	Cu	Ni	Co	Si
Nominal value (wt%)	Bal.	3.55	0.25	0.87

Material Properties

2. Physical Properties

Electrical Conductivity (%IACS) (@20°C)	41
Specific Resistivity (nΩ·m) (@20°C)	42
Thermal Conductivity (W/(m·K))	165
Thermal Expansion Coefficient (×10 ⁻⁶ /K)(@20~200°C)	17.6
Modulus of Elasticity (GPa)	123
Specific Gravity	8.83

3. Mechanical Properties

Temper	Tensile Strength (MPa)	Yield Strength (MPa)	Elongation (%)	Hardness (Hv)
ESH	1010 (920 - 1130)	960 (880 - 1060)	3.0 (≥0.1)	300 (260 - 370)

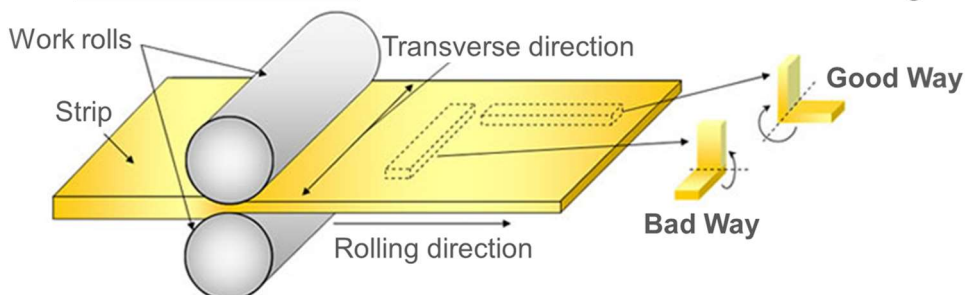
Upper : Typical value, Lower : Standard range

4. W-Shaped 90 degree Bend Formability

Width (mm)	Temper	Thickness (mm)	Minimum Bend Radius / Thickness	
			Good Way	Bad Way
0.2	ESH	0.05	0	0
		0.12	1.0	1.0

※In accordance with Japan Copper and Brass Association technical standard (JCBA T307)

Bend direction from schematic illustration of rolling

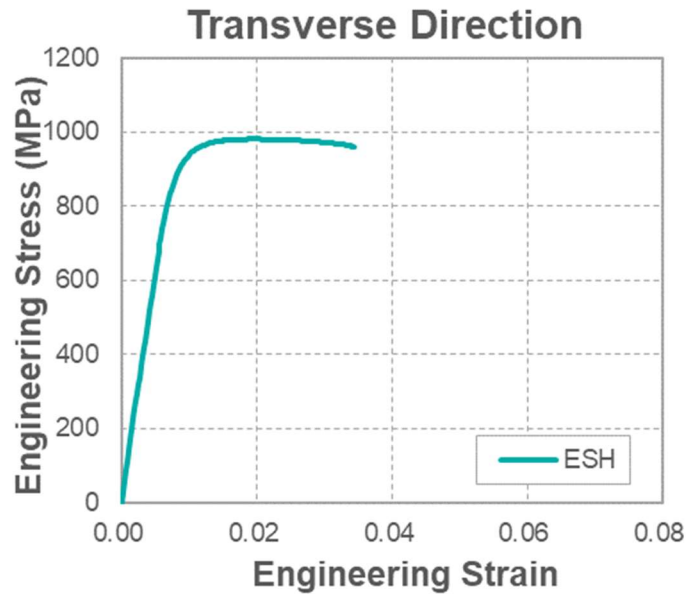
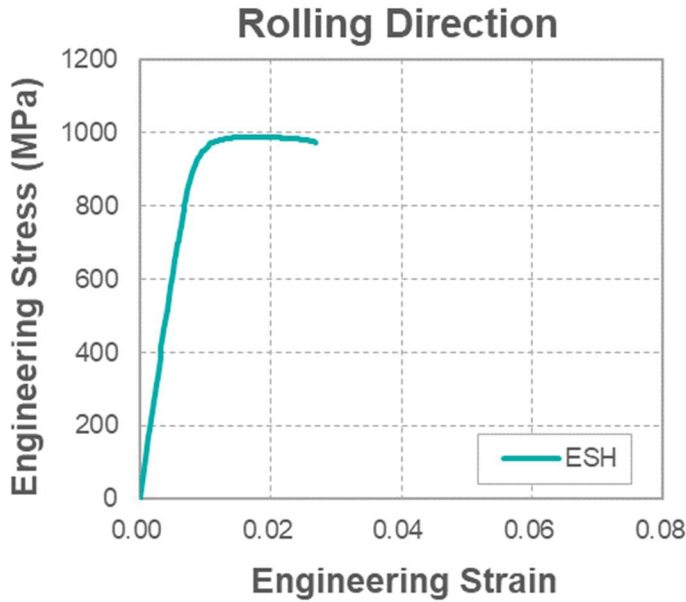


Material Properties

5. Stress-Strain Curve

● Engineering Stress-Strain of NKC8738 can be downloaded from our official website.

Download : https://www.jx-nmm.com/english/products/copper_foil_and_alloy/03corson/excel/NKC8738_S-S_Curve.xlsx



Production Thickness Range

Temper	Thickness Range (mm)
ESH	0.04 ~ 0.20

● Please contact us for the latest stock status and inquiry of other thicknesses.

Contact Address

Web Site : <https://www.jx-nmm.com/english/>

NKC8738 URL : https://www.jx-nmm.com/english/products/copper_foil_and_alloy/03corson/nkc8738.html

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