

High-Performance Copper Alloy

NKC8738S

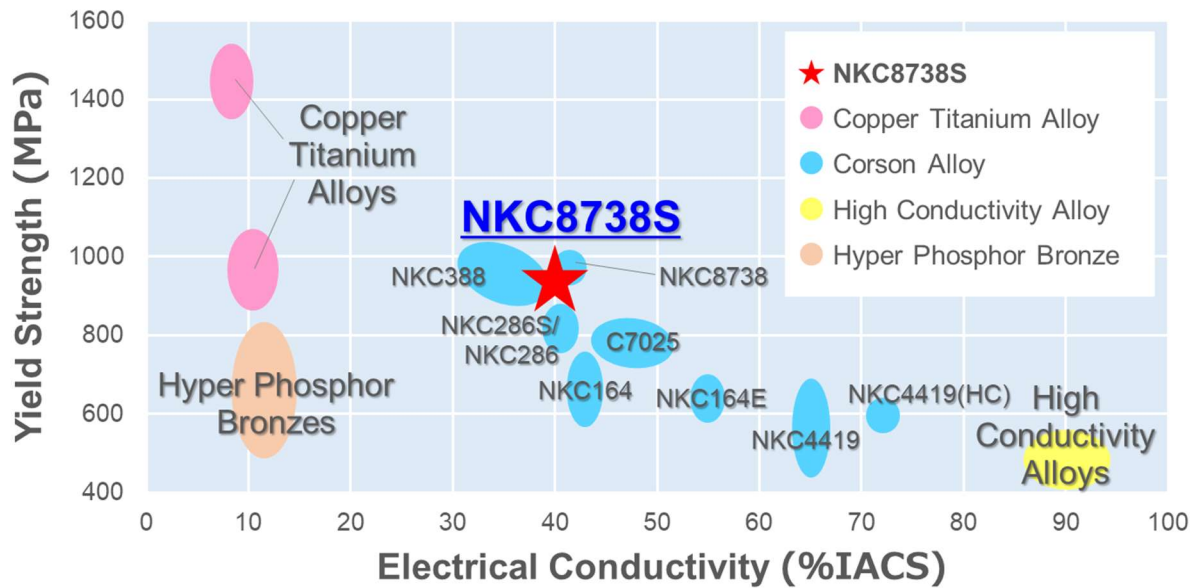
UNS C70390

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

Features

- NKC8738S has same chemical composition as NKC8738, but it has low modulus of elasticity than conventional Corson Alloys through process adjustment.
- NKC8738S is a Corson alloy with excellent strength, conductivity and bending workability.
- NKC8738S contributes to the miniaturization, high density, narrow pitch, and reducing heat generation of electronic components such as connector terminals and CPU sockets.

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)	40
Specific Resistivity (nΩ·m) (@20°C)	44
Thermal Conductivity (W/(m·K))	163
Thermal Expansion Coefficient (×10 ⁻⁶ /K) (@20~200°C)	17.6
Modulus of Elasticity (GPa)	100
Specific Gravity	8.83

3. Mechanical Properties

Temper	Tensile Strength (MPa)	Yield Strength (MPa)	Elongation (%)	Hardness (Hv)
ESH	980 (890 - 1070)	920 (860 - 1010)	3.0 (≥0.5)	295 (260 - 370)

Upper : Typical value, Lower : Standard range

4. W-Shaped 90 degree Bend Formability

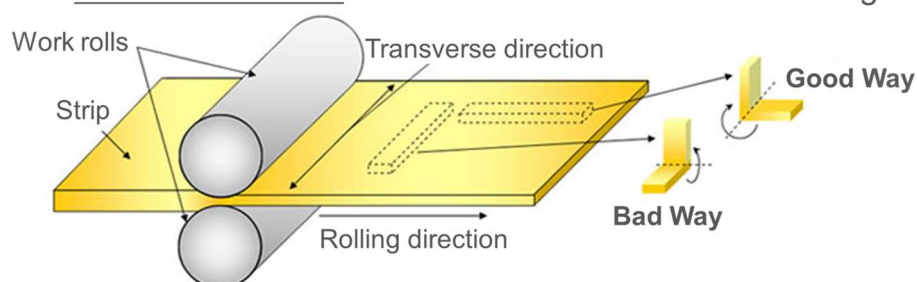
Width (mm)	Temper	Thickness (mm)	Minimum Bend Radius / Thickness	
			Good Way	Bad Way
10	ESH	≤ 0.07	0	0

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

5. 180 degree Bend Formability

Width (mm)	Temper	Thickness (mm)	Minimum Bend Radius / Thickness	
			Good Way	Bad Way
0.2	ESH	0.05	0.5	2.0

Bend direction from schematic illustration of rolling

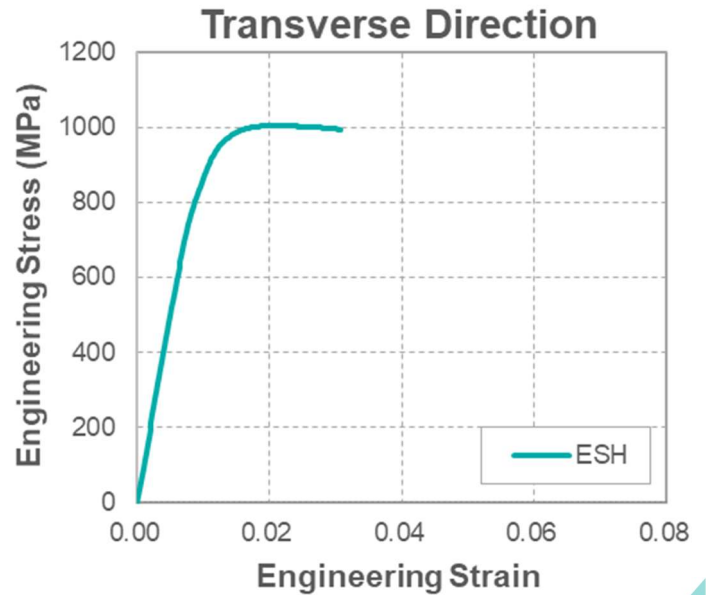
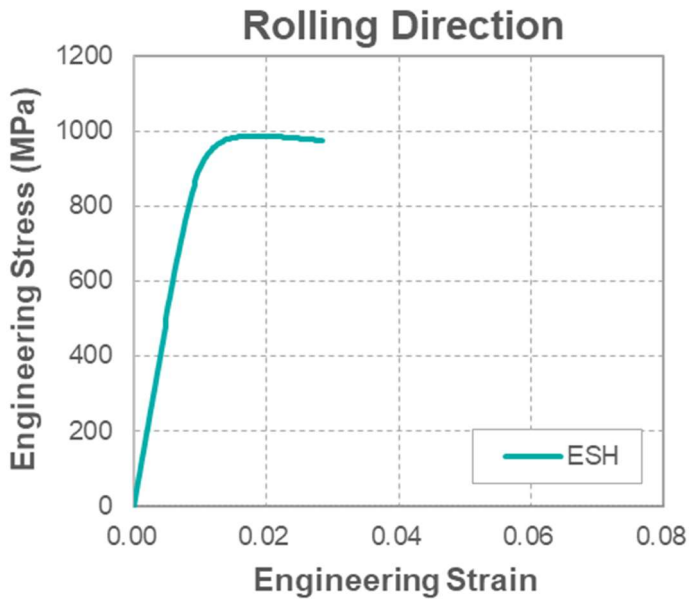


Material Properties

6. Stress-Strain Curve

- Engineering Stress-Strain Curves of NKC8738S can be downloaded from our official website.

Download : https://www.jx-nmm.com/english/products/copper_foil_and_alloy/03corson/excel/NKC8738S_S-S_Curve.xlsx



Production Thickness Range

Temper	Thickness Range (mm)
ESH	0.04 ~ 0.08

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

Contact Address

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

NKC8738S URL : https://www.jx-nmm.com/english/products/copper_foil_and_alloy/03corson/nkc8738s.html

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