

# High-Performance Copper Alloy

# NKC4419(HC)

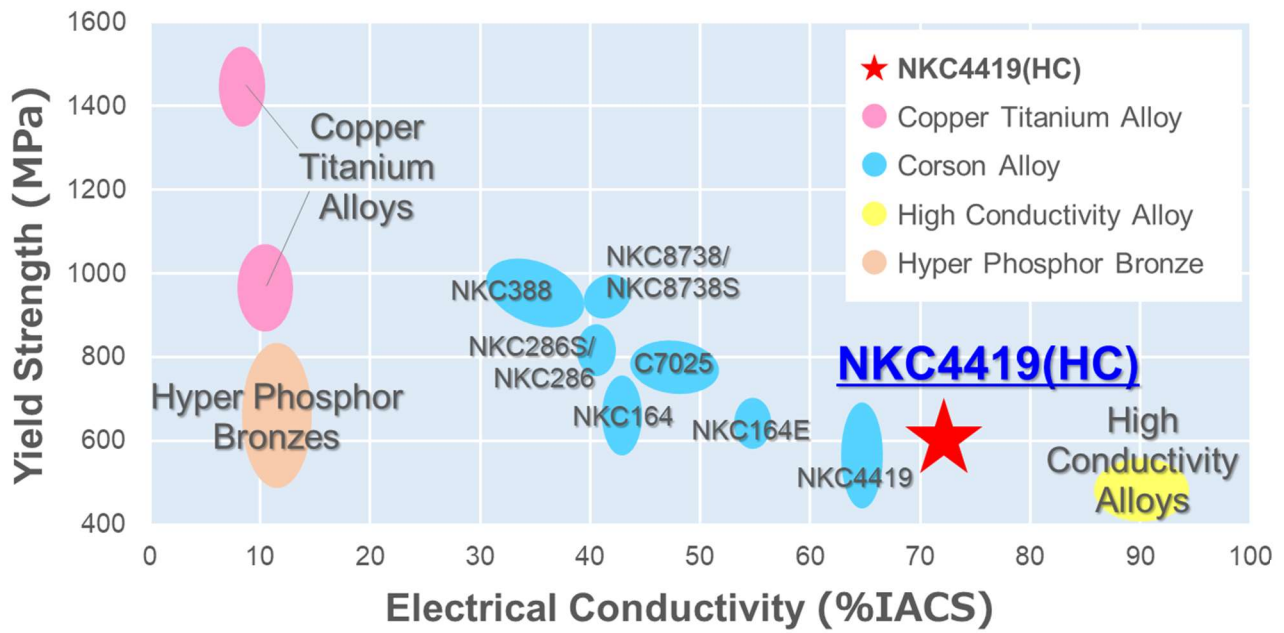
## UNS C64800

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

### Features

- NK4419(HC) is a Corson alloy with the same composition as the conventional NK4419, but with enhanced conductivity through process optimization. It is a new Corson alloy with an excellent balance of strength and electrical conductivity.
- NK4419(HC) is a Corson alloy with excellent bend formability and stretch formability.

### Our Copper Alloy Lineup



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### Material Properties

#### 1. Chemical Composition

Element	Cu	Co	Si
Nominal Value (wt%)	Bal.	1.9	0.44

# Material Properties

## 2. Physical Properties

Electrical Conductivity (%IACS) (@20°C)	71
Specific Resistivity (nΩ·m) (@20°C)	24
Thermal Conductivity (W/(m·K))	288
Thermal Expansion Coefficient (×10 <sup>-6</sup> /K)(@20~200°C)	17.8
Modulus of Elasticity (GPa)	127
Specific Gravity	8.85

## 3. Mechanical Properties

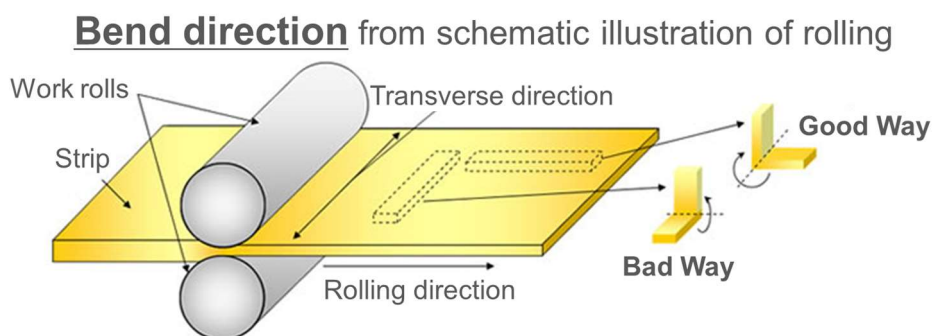
Temper	Tensile Strength (MPa)	Yield Strength (MPa)	Elongation (%)	Hardness (Hv)
H	610 (540 - 670)	590 (520 - 650)	6.0 (≥2.0)	185 (160 - 220)

Upper : Typical value, Lower : Standard range

## 4. W-Shaped 90 degree Bend Formability

Temper	Thickness (mm)	Minimum Bend Radius / Thickness	
		Good Way	Bad Way
H	0.08	0	0

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

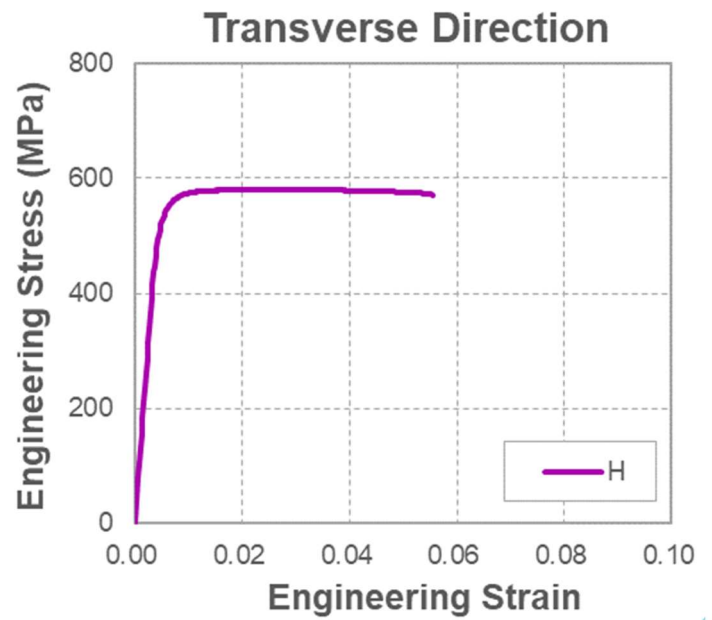
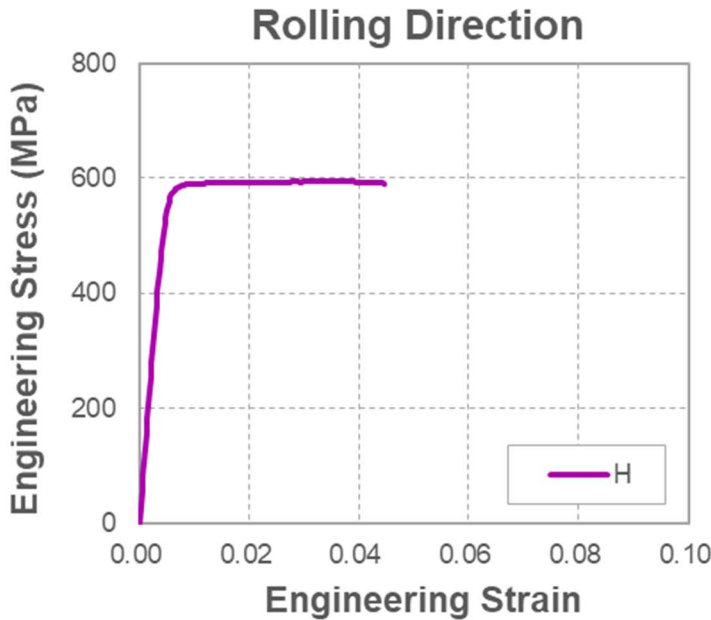


## Material Properties

### 5. Stress-Strain Curve

- Engineering Stress-Strain Curves of NKC4419(HC) can be downloaded from our official website.

Download : [https://www.jx-nmm.com/english/products/copper\\_foil\\_and\\_alloy/03corson/excel/NKC4419HC\\_S-S\\_Curve.xlsx](https://www.jx-nmm.com/english/products/copper_foil_and_alloy/03corson/excel/NKC4419HC_S-S_Curve.xlsx)



## Production Thickness Range

Temper	Thickness Range (mm)
H	0.05 ~ 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/>

NKC4419(HC) URL : [https://www.jx-nmm.com/english/products/copper\\_foil\\_and\\_alloy/03corson/nkc4419hc.html](https://www.jx-nmm.com/english/products/copper_foil_and_alloy/03corson/nkc4419hc.html)

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