

High Purity Metals





9N-Cu

Characteristics of Our 9N-Cu(99.9999999%)

Low level Impurities

- 9N-Cu contains limited amount of impurities.
 - •GDMS analysis results are below its minimum limit of determination.
 - ·Large metal grains.

Metal Characteristics

- •Easier to process and harder to rust.
- The metal characteristic changes in purification method.



Product, Purity and Shape



Element	Ag	Al	Cd	Со	Cr	Cu	Fe	Hf
Purity	6N	5N5	6N	5N	4N	6N	5N	5N
Pullty	OIN	3143	OIN	JIN	411	9N	JIN	6N

Element	In	Mn	Мо	Nb	Ni	Ru	Sb	Sn
Dureitor	6N	4N	6N	5N	5N	411	5N	GNI
Purity	7N	5N	6N	SIN	5N5	4N	SIN	6N

Element	Та	Те	Ti	V	W	Zn	Zr
Purity	4N5 6N	6N 7N	4N5 5N 5N5	4N	5N 6N	6N	4N 4N5

Product, Purity and Shape

- 23 elements and more are available. Please ask us for details.
- The Purity is from 4N to 9N.
- 2x2x2mm cubes for the standard shape.
- Custom-made shapes are also available (Please ask us for details).
- Certificate of Analysis based of GDMS attached to every shipment.





Examples of impurities (Cu)



6N-Cu, 9N-Cu

(ppm-wt

Inclusions	6N	9N
Fe	0.002~0.03	<0.001
Ni	0.001~0.01	<0.001
Ag	0.1~0.3	<0.005
Al	0.004~0.06	<0.001
Se	<0.01~0.2	<0.005
Si	0.05	<0.005
Sb	<0.02	<0.005
As	<0.005	<0.005
Pb	<0.001	<0.001
S	0.01	<0.005

Characteristics of Cu

- Higher reliability: Our Cu targets is made 6N-Cu.
- The highest purity for Cu is 9N (99.9999999%)



Examples of impurities (Ag)



6N-Ag	(ppm-wt)
Inclusions	6N-Ag
Fe	<0.01
Cr	<0.01
Со	<0.01
Cu	<0.01
Al	<0.01
Zn	<0.01
Mn	<0.01
Ni	<0.01
Sb	0.02
Sn	0.02
Р	<0.01

Characteristics of Ag

- 6N-Ag is the highest purity in the world.
- 6N-Ag has variable uses:
 - ⇒Temperature calibrations, CVD(Chemical vapor deposition and more.





Contacts:



North America

JX Nippon Mining & Metals USA, Inc.

125 North Price Road, Chandler AZ 85224, U.S.A.

TEL:+1-480-732-9857 FAX:+1-480-899-0779 sales@nmm-jx-group.com

Europe

JX Nippon Mining & Metals Europe GmbH

Kaiserstrasse 7, D-60311 Frankfurt am Main, Germany TEL:+49-(0)-69-2193653-0 FAX: +49-(0)-69-2193653-20 saleseurope@nmm-jx-group.com

Japan

JX Nippon Mining & Metals Corporation

Compound Semiconductor Marketing Dept.
6-3, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8164 Japan
TEL:+81-3-5299-7286 FAX:+81-3-5529-7349

