

Niobium Nb

Sputtering Targets



Kurt J. Lesker
Company

MATERIALS
DIVISION

Applications

- Optical films
 - Filters
 - Fiber optics
- Architectural glass
- Wear coatings

Features

- High purity
- Grain refinement

Manufacturing Process

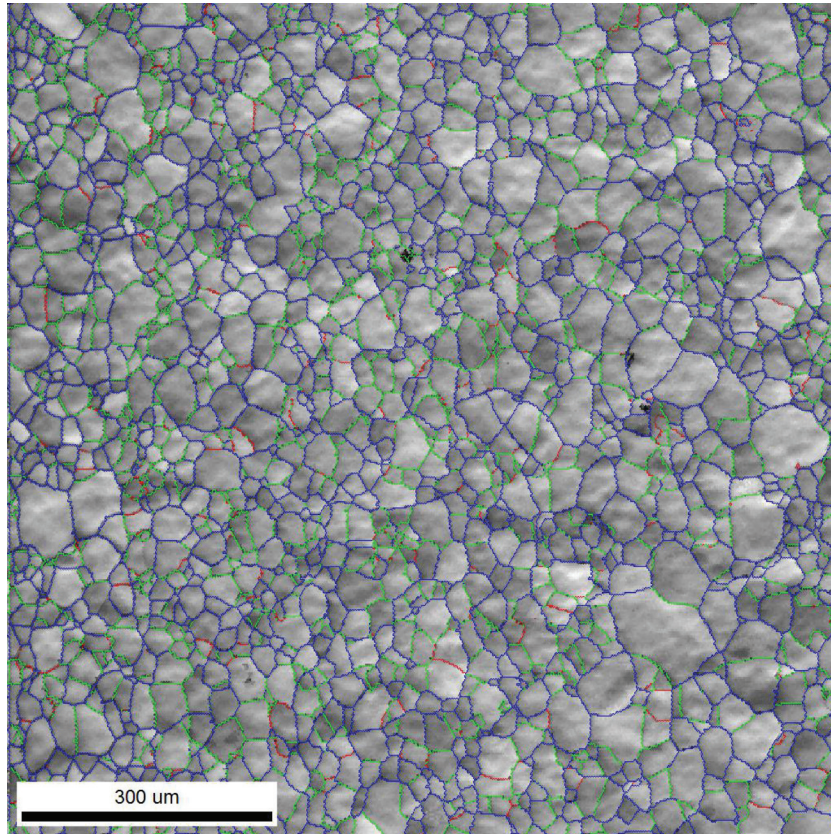
- Refining
 - Multiple step electron beam melting
- Rolled and annealed
- Cleaning and final packaging
 - Cleaned for use in vacuum
 - Protection from environmental contaminants
 - Protection during shipment

Options

- 99.95% minimum purity (excluding Ta)
- Planar circular targets up to 20" (500 mm) diameter
- Planar tiles up to 70" (1800 mm) length and width for larger target configurations
- Smaller sizes also available for R&D applications
- Sputtering target bonding service

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Average grain size <50µm (50X magnification)



Specifications

Typical Analysis - 99.95% (3N5) Purity

Metallic Impurities, ppm by weight

Si	Cl	Fe	Cu	Pd	Ag	Hf	Ta	W	Zr	Mo
<5	<5	<5	<5	<5	<10	<5	<450	<50	<5	<5

Non-Metallic Impurities, ppm by weight

C	H	O	N
<50	<10	<100	<10

Theoretical Density	8.57 g/cm ³
Average Grain Size	<50 µm
Electrical Resistivity	152 nΩ·m
Thermal Conductivity	53.7 W/m·K
Melting Point	2468°C
Appearance	Grey, metallic

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