



OptiPowder NiCu 400:

Corrosion-Resistant Nickel-Copper Alloy for Marine and Chemical Environments

OptiPowder NiCu 400 is a solid-solution nickel-copper alloy powder combining high strength, toughness, and excellent resistance to a wide range of corrosive environments. Comparable in strength to structural steel, this alloy provides superior durability in both sub-zero and elevated temperatures without undergoing ductile-to-brittle transition.

Continuum produces OptiPowder NiCu 400 using the Greyhound Melt-to-Powder (M2P) platform. By transforming reclaimed high-nickel feedstock into high-purity powder, Continuum delivers a reliable, sustainable alternative to virgin material—optimized for metal additive manufacturing, spray coatings, and traditional forming applications.

Typical Physical Properties¹

Property	Specification
Apparent Density	>4.5 g/cc
Tap Density	>5.5 g/cc
Hall Flow	<15 sec/50g
Morphology	Spherical

Nominal Composition (wt%)²

Element	Min	Max
Nickel (Ni)	63.0	70.0
Copper (Cu)	Balance	
Iron (Fe)	-	2.5
Manganese (Mn)	-	2.0
Carbon (C)	-	0.3
Silicon (Si)	-	0.5
Sulfur (S)	-	0.024

1. Properties represented for 15-45µm cut

2. Based on UNS N04400/Ni-CU400 specification; composition may be tailored for customer-specific requirements

Why Choose OptiPowder NiCu 400

- Exceptional Corrosion Resistance – Proven performance in marine, chemical, and brine environments.
- High Strength and Toughness – Comparable to steel, with excellent low-temperature ductility.
- Thermal and Electrical Conductivity – Retains physical properties across broad operating ranges.
- Excellent Fabrication Flexibility – Readily machined, welded, or cold worked; suitable for AM and traditional routes.
- Sustainable Feedstock Assurance – Produced from reclaimed nickel-copper alloys within Continuum's OptiVantage quality framework.

Available PSDs & Customization

Continuum Powders offers OptiPowder NiCu 400 in a variety of particle size distributions (e.g., 0-15 μm , 15-45 μm , 15-63 μm , 45-106 μm , and HIP), tailored to your specific AM process and platform.

Contact us to learn more about how OptiPowder NiCu 400 can strengthen your next AM project.



Contact us to receive a quote and learn more about how OptiPowder NiCu 400 can improve your advanced manufacturing projects.

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