



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 Properties ¹	
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 15-45 μ m 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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