Maraging Stainless 12Cr9Ni

12Cr9Ni-Mo-Al

Corrosion-resistant maraging tool steel powder for mold inserts and conformal-cooled tooling that must resist rust and coolant attack.

Designations: 12Cr9Ni · Corrosion-resistant maraging steel · Stainless maraging tool steel

Supply

Item	Value
Particle-size cuts	15–45 µm · 15–53 µm
Processes	LPBF
Minimum pack	1 kg (paid samples)
Packaging	Aluminium-foil bag · 1 kg sealed pack · Drum
Documents	Lot-specific COA · Particle-size report · Safety data sheet · Chemistry report
List price	Price on request

Chemical composition, wt.%

Element	Limit
Fe	Balance
Cr	11.0–13.0
Ni	8.4–10.0
Mo	1.1–1.7
Al	1.2–2.0
C	≤0.05
Mn	≤0.4
Si	≤0.4
P	≤0.015
S	≤0.015
O	≤0.03
N	≤0.02

Typical partner-plant datasheet limits, wt.%. The quoted lot COA governs.

Powder properties · LPBF screening window

Property	Value	Note
D10	≥15 μm	
D50	30–40 μm	
D90	≤60 μm	
Sphericity	≥0.90	Method to be confirmed
Apparent density	≥4.0 g/cm³	
Tap density	≥4.5 g/cm³	
Flow	≤20 s/50 g	Method and conditioning to be confirmed

A partner-plant datasheet screening basis for this grade; the delivered lot COA remains controlling.

Typical mechanical properties

Condition	Temperature	Tensile	Yield	Elongation	Note
As built	Room temperature	≥1100 MPa	—	≥15%	34–38 HRC
Aged	Room temperature	≥1350 MPa	—	≥10%	48–52 HRC

Partner-plant datasheet values for LPBF test bars at room temperature unless stated. Printed-part properties depend on machine, parameters, orientation, and post-processing.

Typical values, not a lot certificate. The certificate of analysis for the quoted lot governs. Formal quotations and commercial terms are valid only when issued from our official corporate email.

Request a quote: https://metal3dpowder.com/rfq/?product=12cr9ni · Grade page: https://metal3dpowder.com/products/12cr9ni/
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