

GRCop-42 (CuCrNb)

Metal Powder for Additive Manufacturing

PRODUCT DESCRIPTION

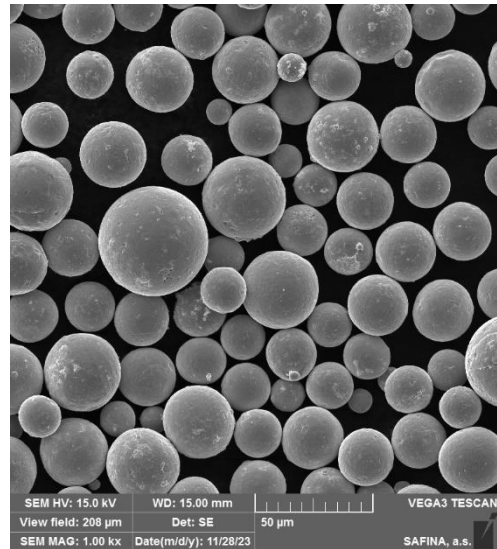
Gas atomized copper-chromium-niobium alloy with great creep resistance low cycle fatigue (LCF) life. It also retain strength at elevated temperatures.

KEY FEATURES

Safina produce high quality powders with perfect traceability, repeatability and have great sphericity and flowability.

APPLICATIONS

Recommended for production of rocket engines, combustion Chambers and nozzels. It also has quite high conductivity up to 75% IACS



TYPICAL PROPERTIES

PHYSICAL DATA:

PSD*	D10 [µm]	D50 [µm]	D90 [µm]
15-50 µm	24	36	51
10-53 µm	11	32	50
20-63 µm	18	41	66

CHEMICAL DATA

Element	Min [wt. %]	Max [wt. %]
Cu	Bal.	Bal.
Cr	3,1	3,4
Nb	2,7	3,0
Fe	-	0,005
Al	-	0,005
Si	-	0,005
O**	-	0,04

OTHER DATA***

Flowability [s/50g]	11
Apparent density [g/cm ³]	5,0

* Other PSD possible according to customer needs

** Oxygen content depends on PSD (mentioned value is for PSD 20-53 µm suitable for LPBF technology)

*** Displayed values are for PSD 20-53 µm suitable for LPBF technology