

m4p Al-Brz8,5

Cu base alloy for laser powder bed fusion process

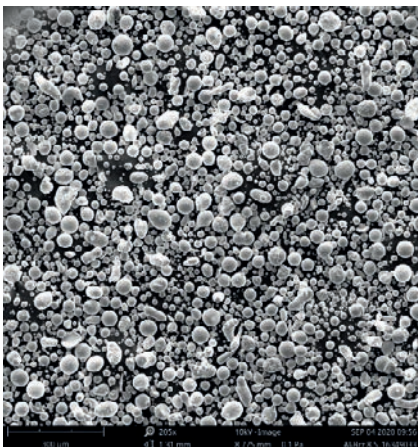
Description, properties and application

m4p™ Al-Brz8,5 is a copper-based metal powder with the main alloying elements aluminum-nickel-iron, suitable for additive manufacturing.

The present aluminum bronze is characterized by its antifriction properties and enhanced resistance to abrasive and erosive wear stress. Among all copper materials, **m4p™ Al-Brz8,5** stands out with a particularly high mechanical strength and toughness, which are retained even at low temperatures.

Due to the as well given corrosion and cavitation resistance, applications can traditionally be found in the maritime sector.

Powder characteristics



Chemical analysis [wt%]

Element	
Cu	Base
Al / Ni / Fe	Main alloying elements

further more limited are: Mn, Si

Material characteristics

(>99,9% rel. density; volume rate 13.3 cm³/h)

Mechanical properties

	Tensile strength Rm [N/mm ²]	Yield strength Re [N/mm ²]	Elongation at break A ₅ [%]
As-built - Z	900 ±30	580 ±50	2 ±1
Heat-treated - Z according to key to steel	700	300	19

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