

m4p CuZn42

Cu base alloy for laser powder bed fusion process

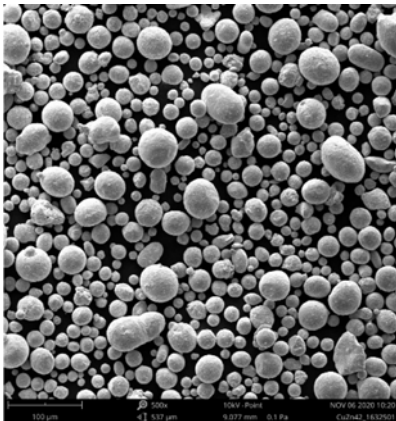
Description, properties and application

m4p™ CuZn42 is a brass alloy with a high zinc content that has good mechanical properties and good mechanical workability. Due to the low lead content, the material is conceivable for jewellery applications, but also drinking water applications. However, the respective national and local regulations must be observed. In some areas only partial surfaces of equipment and parts in sensitive contact are permitted.

The machined surfaces have the gold-coloured appearance characteristic of brass alloys. Corrosion properties and formability can be classified as excellent.

Powder production and powder processing behaviour in additive manufacturing are considered difficult due to the characteristic properties of brass. **m4p™ CuZn42** was therefore provided with a special surface modification to improve additive processing behaviour and enables relative densities >99.5%.

Powder characteristics



Chemical analysis [wt%]		
Element	Min	Max
Cu	56,00	59,00
Ni		<0,50
Fe		<0,50
Sn		<0,50
Si		<0,10
Mn		<0,10
Pb		<0,05
Zn		Base

Additive manufacturing (=99,67% rel. density)



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