
MIM-Material Specification and Applications

Composition

Material: Silver alloy, AgCu3

Standards: Parmaco AgCu3

Typical composition::	<i>Element</i>	<i>Content (%)</i>
	Ag	97
	Cu	3
	Sonstige	-

Properties

As sintered

Density	$\geq 10.20 \text{ g/cm}^3$
Hardness	$\geq 45 \text{ HV1}$
Yield strength $R_{p0.2}$	$\geq 100 \text{ MPa}$
Tensile strength R_m	$\geq 200 \text{ MPa}$
Elastic Modulus	85 GPa
Elongation A	$\geq 20 \%$
Surface quality R_a	$\leq 1.6 \text{ }\mu\text{m}$
Electrical conductivity	54 m/ Ωmm^2
Electrical resistance	0.0185 $\mu\Omega\text{m}$
Thermal conductivity	385 W/mK

Application / remarks

Silver-based alloys are used as contact materials when it comes to the controlled switching of electrical loads. The high electrical conductivity and low electrical resistance are the key properties. This material is used in switching contacts, collectors and commutators.