AgWC

Silver Tungsten Carbide

SCOPE: This information refers to silver based contact material with tungsten carbide as the second main component manufactured by infiltration of molten silver into a porous tungsten carbide preform.

Designation of standard compositions

The tungsten carbide content is designated by the first number: e. g. AgWC50 in weight percent. The standard percentages are 30, 40 and 50.

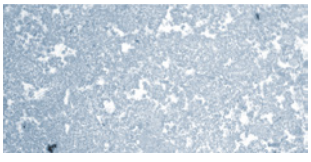
Characteristics

Comparable with silver tungsten with improved behaviour of contact resistance. Tungsten carbide decomposes in the arc and the released carbon forms a protective CO gas envelope which suppresses the formation of tungsten oxides and tungstates.

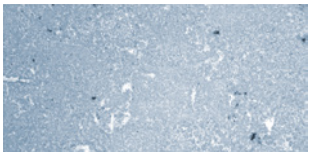
Applications

- circuit breakers (ACB, MCCB)
- earth leakage breakers (RCCB)
- miniature circuit breakers (MCB)
- arc fault and ground fault circuit interrupters (AFCI, GFCI)

Microstructure



AgWC40



AgWC50

Physical Properties

MATERIAL	DENSITY [g/cm³]	ELECTRICAL CONDUCTIVITY [m/(Ω·mm²)]	HARDNESS [HRB]
AgWC30	11.2	36	57
AgWC40	11.7	34	72
AgWC50	12.2	29	85

Metal Solutions for Power, Safety & Performance

Checon, LLC
30 Larsen Way
North Attleboro, MA 02763
Phone: +1 508 809 5100
sales@checon.com

www.checon.com