

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.

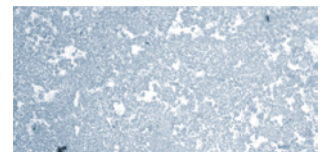
## Characteristics

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.

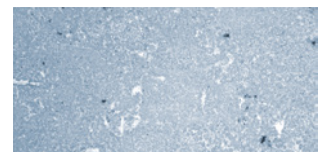
## Applications

- » 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/cm <sup>3</sup> ]	ELECTRICAL CONDUCTIVITY [m/(Ω·mm <sup>2</sup> )]	HARDNESS [HRB]
AgWC30	11.2	36	57
AgWC40	11.7	34	72
AgWC50	12.2	29	85



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