Ag/$ZnO_2$

# Silver Zinc Oxide

### Manufacturing process and delivery forms

The material is manufactured by blending silver and zinc oxide powder, compacting, sintering, and extruding in the form of wire, profile and contact tips.

The latter are available with a brazable silver layer and, optionally, with an additional layer of brazing alloy.

### Quality features of silver zinc oxide from Umicore

The components of the material are very evenly distributed. The material gets its excellent erosion resistance from the extreme level of compaction produced during the extrusion process.

### Composition

Silver zinc oxide is available as Ag/ZnO 92/8 with 92 % silver by weight.

Tungsten oxide as an active component greatly improves the welding resistance in general purpose applications.

### Key features

- high resistance to welding on make
- low contact resistance (comparable with other silver metal oxides)
- low erosion in small current-limiting circuit breakers and motor-protection circuit breakers
- free of toxic and carcinogenic components

### Applications

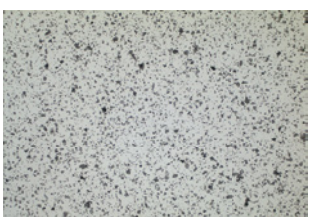
- earth-leakage circuit breaker
- motor-protection circuit breaker
- circuit breaker
- general purpose relays
- small contactors

### Standard Composition

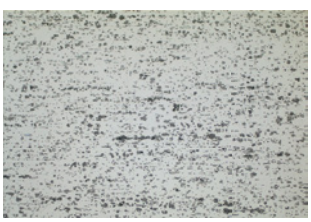
| Ag/ZnO | ADDITIVE |
|---|---|
| SP | None |
| SPW | Tungsten Oxide |

### Microstructure

The zinc oxide particles are homogeneously distributed in the cross section. The directional forming during extrusion leads to a slight orientation of the zinc oxide particles in the longitudinal section.



**Ag/ZnO 92/8 SPW**
**cross section**



**Ag/ZnO 92/8 SPW**
**longitudial section**