

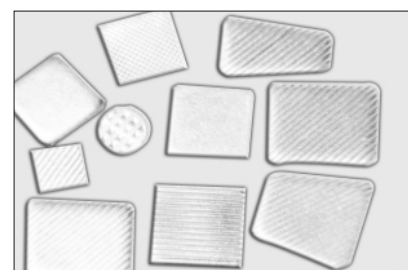
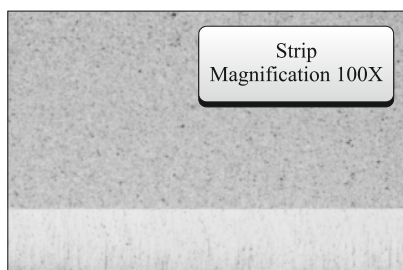
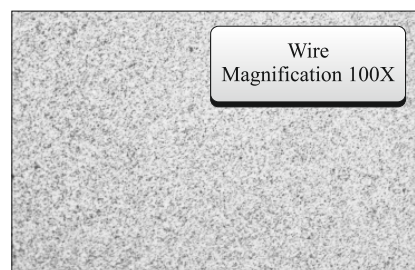
# Silver Tin Oxide Contact

## SILTINOX

Silver tin oxide ( $\text{AgSnO}_2$ ) based contacts since their introduction are looked upon as potential replacement for  $\text{AgCdO}$ . The  $\text{AgSnO}_2$  contacts have seen continued improvisation, with respect to their applicability and performance, by enhancement in their fine microstructure.

$\text{AgSnO}_2$  based contacts are increasingly dominating the market for medium and high current contact relays because of their low arc erosion. Besides the base oxide  $\text{SnO}_2$  embedded in the Ag matrix, these materials may or may-not contain additives like  $\text{Bi}_2\text{O}_3$ ,  $\text{CuO}$ ,  $\text{In}_2\text{O}_3$ ,  $\text{WO}_3$  and  $\text{MoO}_3$  in a combination of varying amounts not exceeding 2%. The  $\text{AgSnO}_2$  based contacts are manufactured by powder metallurgy (powder blending, compaction and sintering) followed by extrusion /drawing/rolling to the final dimensions. Modison offers a range of  $\text{AgSnO}_2$  products in various forms (profiles, wires, strips, etc.) manufactured by powder metallurgy. The profiles or strips can be provided with 10%-20% fine silver layer for easy brazing. The material quality meets the prevailing standard international norms.

$\text{AgSnO}_2$	SILTINOX 10	SILTINOX 12	SILTINOX 14	WIRE
Composition (wt %)	Ag (89-90), $\text{SnO}_2$ (8-9)	Ag (87-88), $\text{SnO}_2$ (10-11)	Ag (85-87), $\text{SnO}_2$ (12-13)	Same as doped
Additives	$\text{Bi}_2\text{O}_3$ , Cu	$\text{Bi}_2\text{O}_3$ , Cu	$\text{Bi}_2\text{O}_3$ , Cu	Un-doped
Density(g/cc)	9.9	9.8	9.7	Same as doped
Electrical Conductivity (%IACS)	78 -82	75-80	74	Same as doped
Hardness (HV)	65 - 100	65-100	70 - 115	Same as doped
Tensile strength ( $\text{N/mm}^2$ )	280 - 320	280 -320	—	Same as doped



**MODISON**  
THE SILVER PEOPLE

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