

PRODUCT CODE	SAG EVO
FINENESS	925
COLOR	SILVER



Brief description

Master alloy for silver, 800, 925 and 950 fineness. With its low content of deoxidizers, SAG EVO is suggested when high resistance is needed. The hardness of silver produced with SAG EVO can be increased with heat treatment.

Suitable applications

Plates&Sheets	Solid Chains	Hollow Chains	Soldered Tubes	CNC Works	Open Casting	Closed Casting	Wax Setting
■ ■ ■ □ □	■ ■ ■ ■ ■	■ ■ □ □ □	■ ■ ■ □ □	■ ■ ■ ■ □	□ □ □ □ □	□ □ □ □ □	□ □ □ □ □

Proprieties

Composition	Cu97 Zn2	Commercial composition of the alloy
Density	10.3	(g/cm ³)
Melting Range	760-895	Solidus - Liquidus (°C)
Hardness	60-130	Annealed - Hardened (HV)

Mould casting

Put first the alloy in the crucible and cover it with pure silver. Heat the metal 50-100°C more than Liquidus temperature, while protecting the melting with a reducing flame or keeping it in protective atmosphere. Heat the mould at 150 - 200°C and, when the melting temperature is reached, stir the metal and pour it in the mould; after casting, open the mould and cool the metal immediately.

Continuous casting

When using a continuous casting machine, it is preferable to pre-melt silver and alloy. Alloyed silver can then be poured it in a mould or in water and re-melted in the continuous casting machine, or poured directly in the machine's crucible, heating it until it reaches alloy's liquidus temperature. Always protect the melting using a reducing flame over the molten metal. Machine's speed should be the highest possible.

Mechanical work

For the best mechanical results, reduce the section of the wire or plate at least of 50% before proceeding with the annealing process. The first reduction steps should be strong enough to ensure the metal inner part compacting.

Annealing

Heat the metal in protective atmosphere at 570°C for 15-20 min, then quickly cool it in a solution of 90% water and 10% alcohol or in warm water (≈40°C).

Hardening

Heat the metal in protective atmosphere at 300°C from 1 up to 3 hours, then let it cool slowly in protective atmosphere until room temperature is reached.

Casting

Not suitable.

Pickling

Sulfuric acid (H₂SO₄) at 15-30% concentration and 50-60°C can be used to remove surface oxide. Rinse with attention the metal after pickling.

Scraps reuse

Up to 50% scraps can be added to the melting. Always pay attention to the cleanliness of the scraps, pickling before adding them to new metal is suggested.