PRODUCT CODE	**SW 18 C**
FINENESS	**750 (18K)**
COLOR	**STANDARD WHITE**

Brief description

Master alloy for white gold 18K. The formulation of SW 18 C is suitable for casting in open and closed system. The colour obtained with SW 18 C is standard white (rhodium plating is suggested). The hardness of gold produced with SW 18 C can be increased with heat treatment. Warning: This alloy contains Nickel.

Suitable applications

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

Commercial composition	Ni20 Zn18 Ag0	Alloy's main elements (%)
Density	14.8	(g/cm³)
Melting Range	885-910	Solidus - Liquidus (°C)
Hardness	180-215	Annealed - Hardened (HV)

Mould casting

Put first the alloy in the crucible and cover it with pure gold. 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, wait until the metal reaches ~500°C, then cool it in water.

Continuous casting

Not suitable.

Mechanical work

Not suitable.

Annealing

Heat the metal in protective atmosphere at 700°C for 15-30min (depending on the quantity), then wait until the metal reaches ~500°C and finally 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 275°C from 1 up to 3 hours, then let it cool slowly in protective atmosphere until room temperature is reached.

Casting

Flasks' temperature should be between 500-700°C, based on casted items' size and models' intricacy. It is preferable to pre-melt the alloy with gold before casting. Casting temperature is 50-100°C higher than the liquidus temperature. After casting wait 15-20 min before cooling the metal in warm water (~40°C). In case of casting with stones, wait 30-45 min.

Pickling

Sulfuric acid (H_2SO_4) at 10% 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, removal of sprue button is suggested. Always pay attention to the cleanliness of the scraps, de-greasing and pickling before adding them to new metal is suggested.