

<b>PRODUCT CODE</b>	<b>SW202</b>
<b>FINENESS</b>	<b>375 (9K)</b>
<b>COLOR</b>	<b>STANDARD WHITE</b>



### Brief description

Master alloy for white gold 9, 10, 14 and 18K. The formulation of SW202 is suitable for mechanical works. This alloy is designed to produce easy-bending wires. The colour obtained with SW202 is standard white (rhodium plating is suggested) in 9K, and off white (rhodium plating is needed) in higher carats. The hardness of gold produced with SW202 can be increased with heat treatment only in 18K. 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

<b>Commercial composition</b>	Ni15 Zn14 Ag0	Alloy's main elements (%)
<b>Density</b>	10.9	(g/cm <sup>3</sup> )
<b>Melting Range</b>	975-1045	Solidus - Liquidus (°C)
<b>Hardness</b>	120-N.A.	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

When using a continuous casting machine, it is preferable to pre-melt gold and alloy. Alloyed gold can then be poured 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 50-60% 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 730°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

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### Casting

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### Pickling

Sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) 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. Always pay attention to the cleanliness of the scraps, de-greasing and pickling before adding them to new metal is suggested.

<b>PRODUCT CODE</b>	<b>SW202</b>
<b>FINENESS</b>	<b>417 (10K)</b>
<b>COLOR</b>	<b>OFF WHITE</b>



### Brief description

Master alloy for white gold 9, 10, 14 and 18K. The formulation of SW202 is suitable for mechanical works. This alloy is designed to produce easy-bending wires. The colour obtained with SW202 is standard white (rhodium plating is suggested) in 9K, and off white (rhodium plating is needed) in higher carats. The hardness of gold produced with SW202 can be increased with heat treatment only in 18K. 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

<b>Commercial composition</b>	Ni15 Zn14 Ag0	Alloy's main elements (%)
<b>Density</b>	11.3	(g/cm <sup>3</sup> )
<b>Melting Range</b>	955-995	Solidus - Liquidus (°C)
<b>Hardness</b>	120-N.A.	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

When using a continuous casting machine, it is preferable to pre-melt gold and alloy. Alloyed gold can then be poured 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 50-60% 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 720°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

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### Casting

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### Pickling

Sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) 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. Always pay attention to the cleanliness of the scraps, de-greasing and pickling before adding them to new metal is suggested.

<b>PRODUCT CODE</b>	<b>SW202</b>
<b>FINENESS</b>	<b>585 (14K)</b>
<b>COLOR</b>	<b>OFF WHITE</b>



### Brief description

Master alloy for white gold 9, 10, 14 and 18K. The formulation of SW202 is suitable for mechanical works. This alloy is designed to produce easy-bending wires. The colour obtained with SW202 is standard white (rhodium plating is suggested) in 9K, and off white (rhodium plating is needed) in higher carats. The hardness of gold produced with SW202 can be increased with heat treatment only in 18K. 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

<b>Commercial composition</b>	Ni15 Zn14 Ag0	Alloy's main elements (%)
<b>Density</b>	12.8	(g/cm <sup>3</sup> )
<b>Melting Range</b>	930-970	Solidus - Liquidus (°C)
<b>Hardness</b>	130-N.A.	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

When using a continuous casting machine, it is preferable to pre-melt gold and alloy. Alloyed gold can then be poured 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 50-60% 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 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

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### Casting

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### Pickling

Sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) 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. Always pay attention to the cleanliness of the scraps, de-greasing and pickling before adding them to new metal is suggested.

<b>PRODUCT CODE</b>	<b>SW202</b>
<b>FINENESS</b>	<b>750 (18K)</b>
<b>COLOR</b>	<b>OFF WHITE</b>



**Brief description**

Master alloy for white gold 9, 10, 14 and 18K. The formulation of SW202 is suitable for mechanical works. This alloy is designed to produce easy-bending wires. The colour obtained with SW202 is standard white (rhodium plating is suggested) in 9K, and off white (rhodium plating is needed) in higher carats. The hardness of gold produced with SW202 can be increased with heat treatment only in 18K. 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**

<b>Commercial composition</b>	Ni15 Zn14 Ag0	Alloy's main elements (%)
<b>Density</b>	14.7	(g/cm <sup>3</sup> )
<b>Melting Range</b>	895-915	Solidus - Liquidus (°C)
<b>Hardness</b>	195-290	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**

When using a continuous casting machine, it is preferable to pre-melt gold and alloy. Alloyed gold can then be poured 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 50-60% 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 670°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**

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**Pickling**

Sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) 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. Always pay attention to the cleanliness of the scraps, de-greasing and pickling before adding them to new metal is suggested.