

<b>PRODUCT CODE</b>	<b>SY 10 MD</b>
<b>FINENESS</b>	<b>375 (9K)</b>
<b>COLOR</b>	<b>RICH YELLOW</b>



### Brief description

Master alloy for yellow gold 9, 10, 14K Mechanical works. The colour obtained with SY 10 MD is a rich yellow shade. This alloy is especially designed for hollow chains production, thanks to its high strength. The hardness of gold produced with SY 10 MD can't be increased with heat treatment.

### Suitable applications

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

<b>Silver Quantity</b>	8%	Amount of silver contained in the alloy (%)
<b>Density</b>	11.1	(g/cm <sup>3</sup> )
<b>Melting Range</b>	845-900	Solidus - Liquidus (°C)
<b>Hardness</b>	100-/	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 and cool the metal immediately.

### 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% 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 °C for 10-30min (depending on the quantity), then quickly 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, 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.

<b>PRODUCT CODE</b>	<b>SY 10 MD</b>
<b>FINENESS</b>	<b>417 (10K)</b>
<b>COLOR</b>	<b>RICH YELLOW</b>



### Brief description

Master alloy for yellow gold 9, 10, 14K Mechanical works. The colour obtained with SY 10 MD is a rich yellow shade. This alloy is especially designed for hollow chains production, thanks to its high strength. The hardness of gold produced with SY 10 MD can't be increased with heat treatment.

### Suitable applications

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

<b>Silver Quantity</b>	8%	Amount of silver contained in the alloy (%)
<b>Density</b>	11.3	(g/cm <sup>3</sup> )
<b>Melting Range</b>	845-915	Solidus - Liquidus (°C)
<b>Hardness</b>	100-/	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 and cool the metal immediately.

### 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% 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 10-30min (depending on the quantity), then quickly 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, 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.

<b>PRODUCT CODE</b>	<b>SY 10 MD</b>
<b>FINENESS</b>	<b>585 (14K)</b>
<b>COLOR</b>	<b>RICH YELLOW</b>



### Brief description

Master alloy for yellow gold 9, 10, 14K Mechanical works. The colour obtained with SY 10 MD is a rich yellow shade. This alloy is especially designed for hollow chains production, thanks to its high strength. The hardness of gold produced with SY 10 MD can't be increased with heat treatment.

### Suitable applications

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

<b>Silver Quantity</b>	8%	Amount of silver contained in the alloy (%)
<b>Density</b>	12.8	(g/cm <sup>3</sup> )
<b>Melting Range</b>	840-890	Solidus - Liquidus (°C)
<b>Hardness</b>	125-/	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 and cool the metal immediately.

### 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% 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 10-30min (depending on the quantity), then quickly 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, 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.