

PRODUCT CODE	SY 123 P
FINENESS	375 (9K)
COLOR	LIGHT YELLOW



Brief description

Master alloy for 9, 10 and 14K yellow gold casting. Gold produced with SY 123 P has a light-yellow shade in 9 and 10K, a rich-yellow shade in 14K. This alloy is suitable for casting in open or closed systems. The hardness of gold produced with SY 123 P can be increased with heat treatment only in 9 and 10K.

Suitable applications

Plates&Sheets	Solid Chains	Hollow Chains	Soldered Tubes	CNC Works	Open Casting	Closed Casting	Wax Setting
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Properties

Silver Quantity	15%	Amount of silver <u>contained</u> in the alloy (%)
Density	11.0	(g/cm ³)
Melting Range	815-895	Solidus - Liquidus (°C)
Hardness	110-170	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 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

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Mechanical work

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Annealing

Heat the metal in protective atmosphere at 650°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

Heat the metal in protective atmosphere at 275°C for 1-3 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 (H₂SO₄) 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.

PRODUCT CODE	SY 123 P
FINENESS	417 (10K)
COLOR	LIGHT YELLOW



Brief description

Master alloy for 9, 10 and 14K yellow gold casting. Gold produced with SY 123 P has a light-yellow shade in 9 and 10K, a rich-yellow shade in 14K. This alloy is suitable for casting in open or closed systems. The hardness of gold produced with SY 123 P can be increased with heat treatment only in 9 and 10K.

Suitable applications

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

Silver Quantity	15%	Amount of silver <u>contained</u> in the alloy (%)
Density	11.4	(g/cm ³)
Melting Range	805-885	Solidus - Liquidus (°C)
Hardness	100-155	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 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

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Mechanical work

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Annealing

Heat the metal in protective atmosphere at 640°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

Heat the metal in protective atmosphere at 250°C for 1-3 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 (H₂SO₄) 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.

PRODUCT CODE	SY 123 P
FINENESS	585 (14K)
COLOR	RICH YELLOW



Brief description

Master alloy for 9, 10 and 14K yellow gold casting. Gold produced with SY 123 P has a light-yellow shade in 9 and 10K, a rich-yellow shade in 14K. This alloy is suitable for casting in open or closed systems. The hardness of gold produced with SY 123 P can be increased with heat treatment only in 9 and 10K.

Suitable applications

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

Silver Quantity	15%	Amount of silver <u>contained</u> in the alloy (%)
Density	12.8	(g/cm ³)
Melting Range	810-865	Solidus - Liquidus (°C)
Hardness	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 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

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Mechanical work

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Annealing

Heat the metal in protective atmosphere at 640°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

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 (H₂SO₄) 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.