

PRODUCT CODE	SR 14 ADM3
FINENESS	375 (9K)
COLOR	RUSSIAN RED



Brief description

Master alloy for red gold 9, 10 and 14K. The formulation of SR 14 ADM3 is suitable for mechanical works. This alloy contains anti-tarnish elements and is recommended especially to produce hollow chains and stamped items. The colour obtained with SR 14 ADM3 is known as "Russian red". The hardness of gold produced with SR 14 ADM3 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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Properties

Commercial composition	Cu86 Ag9 Zn5	Alloy's main elements (%)
Density	11.2	(g/cm ³)
Melting Range	875-950	Solidus - Liquidus (°C)
Hardness	110-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 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 of 50% before the first annealing process and 50 - 70% before further annealing. The first reduction steps should be strong enough to ensure the metal inner part compacting. Lower reduction could lead to grain growth of the metal structure, higher reductions could lead to brittleness.

Annealing

Heat the metal in protective atmosphere at 650°C for 15-30min (depending on the quantity), then cool it in a solution of 90% water and 10% alcohol or in warm water (~40°C).

Hardening

Not suitable.

Casting

Not suitable.

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	SR 14 ADM3
FINENESS	417 (10K)
COLOR	RUSSIAN RED



Brief description

Master alloy for red gold 9, 10 and 14K. The formulation of SR 14 ADM3 is suitable for mechanical works. This alloy contains anti-tarnish elements and is recommended especially to produce hollow chains and stamped items. The colour obtained with SR 14 ADM3 is known as "Russian red". The hardness of gold produced with SR 14 ADM3 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

Commercial composition	Cu86 Ag9 Zn5	Alloy's main elements (%)
Density	10.5	(g/cm ³)
Melting Range	850-940	Solidus - Liquidus (°C)
Hardness	110-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 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 of 50% before the first annealing process and 50 - 70% before further annealing. The first reduction steps should be strong enough to ensure the metal inner part compacting. Lower reduction could lead to grain growth of the metal structure, higher reductions could lead to brittleness.

Annealing

Heat the metal in protective atmosphere at 640°C for 15-30min (depending on the quantity), then cool it in a solution of 90% water and 10% alcohol or in warm water (~40°C).

Hardening

Not suitable.

Casting

Not suitable.

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	SR 14 ADM3
FINENESS	585 (14K)
COLOR	RUSSIAN RED



Brief description

Master alloy for red gold 9, 10 and 14K. The formulation of SR 14 ADM3 is suitable for mechanical works. This alloy contains anti-tarnish elements, and is recommended especially to produce hollow chains and stamped items. The colour obtained with SR 14 ADM3 is known as "Russian red". The hardness of gold produced with SR 14 ADM3 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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Properties

Commercial composition	Cu86 Ag9 Zn5	Alloy's main elements (%)
Density	13.0	(g/cm ³)
Melting Range	880-910	Solidus - Liquidus (°C)
Hardness	135-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 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 of 50% before the first annealing process and 50 - 70% before further annealing. The first reduction steps should be strong enough to ensure the metal inner part compacting. Lower reduction could lead to grain growth of the metal structure, higher reductions could lead to brittleness.

Annealing

Heat the metal in protective atmosphere at 650°C for 15-30min (depending on the quantity), then cool it in a solution of 90% water and 10% alcohol or in warm water (~40°C).

Hardening

Not suitable.

Casting

Not suitable.

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.