

GENERAL INFORMATION
General information

Typology	Master alloy for gold
Color	Red
Color shade	Red
Production process	All-purpose
Grain refinement level	Medium
Deoxidation level	Minimum

Commercial composition (%)

CU	86.0
AG	11.0
ZN	3.0

Melting Temperatures

Solidus [°C]	865.0
Liquidus [°C]	905.0
Melting range [°C]	40.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
87.0	8.8	16.8	18.9	

Mechanical characteristics

As cast hardness [HV 0.2]	160.0
Single step age-hardening hardness [HV 0.2]	320.0

Physical characteristics

Density [g/cm ³]	14.9
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Product applications

Continuous casting
 Ingot casting
 Casting in closed systems
 Casting without stones
 CNC and lathe production
 Sheet production
 Stamping production
 Blanking production
 Age hardening

OR316U 750‰

ALL-PURPOSE MASTER ALLOY FOR 375-585-750‰ (9-14-18 KT) RED GOLD

CASTING PROCESSING PARAMETERS

POURING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	650	720	1010	1040
0.5 - 1.2 mm	600	650	990	1010
> 1.2 mm	560	600	970	990

Trees without stones

Take out the flask within 1 minute from pouring, and quench it directly in water.

Stone-in-place casting trees

Remove the flask immediately from the machine. Dip only the bottom part of the tree in cold water and keep under ventilation for 15 m

Pickling

Dip in RADIAL solution (50 g/l conc. at 60°C) for 2 minutes, or in sulphuric acid (10% concentration at 50°C) for 5 minutes.

MECHANICAL WORKING PARAMETERS
Reductions

Wire - diameter (%)	45.0
Sheet - area or thickness (%)	70.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot to [°C]	Ingot from [°C]
Temperatures	1005	1085	985	1025

MECHANICAL WORKING ANNEALING	Temp. from [°C]	Temp. to [°C]	Time [min]
< 1 mm	620	660	25
1 - 5 mm	620	660	30
> 5 mm	620	660	35

Mechanical working quenching

Quench directly in 50%/50% water/alcohol solution or in water.

AGE HARDENING PROCESSING PARAMETERS

SINGLE STEP	Temperature [°C]	Time [min]	Quenching
AGE HARDENING	300.0	90.0	In air or in furnace