

**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]	935
Liquidus [°C]	970

**FULL CHARACTERIZATION DATA**
**Color coordinates**

L *	a*	b*	c*	Yellow Index
83.4	8.6	14.5		

**Mechanical characteristics**

As cast hardness [HV 0.2]	110.0
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**Physical characteristics**

Density [g/cm <sup>3</sup> ]	11.1
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**Product applications**

Continuous casting  
 Ingot casting  
 Handmade production  
 Wire production  
 Sheet production  
 Stamping production  
 TIG tube production

**OR316U 375‰**

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	660	720	1060	1090
0.5 - 1.2 mm	580	650	1040	1060
> 1.2 mm	460	600	1020	1040

**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	1070	1150	1050	1090

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