

GENERAL INFORMATION
General information

Typology	Master alloy for gold
Color	Red
Color shade	Pink
Production process	All-purpose
Grain refinement level	Very high
Deoxidation level	Low

Commercial composition (%)

CU	80.0
AG	18.0
ZN	2.0

Melting Temperatures

Solidus [°C]	885.0
Liquidus [°C]	900.0
Melting range [°C]	15.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
83.5	8.0	17.3	19.1	

Mechanical characteristics

As cast hardness [HV 0.2]	180.0
Hardness after 70% area red. [HV 0.2]	275.0
Hardness after annealing [HV 0.2]	180.0
Single step age-hardening hardness [HV 0.2]	325.0
Tensile strength (Rm) [Mpa]	489.0
Yield strength (Rp0.2) [MPa]	330.0
Elongation at rupture (A) [%]	31.0

Physical characteristics

Density [g/cm ³]	14.9
------------------------------	------

General characteristics

As cast grain size [μm]	90.0
-------------------------	------

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

CASTING PROCESSING PARAMETERS
Pre-melting temperature

Temperature [°C] 1020

POURING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	650	720	1000	1030
0.5 - 1.2 mm	600	650	980	1000
> 1.2 mm	560	600	960	980

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 minutes. Quench in warm water.

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
Pre-melting temperature

Temperature [°C] 1020

Reductions

Wire - diameter (%)	45.0
Sheet - area or thickness (%)	75.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot to [°C]	Ingot from [°C]
Temperatures	1000	1080	980	1020

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

Mechanical working quenching

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

OR133 750‰

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

AGE HARDENING PROCESSING PARAMETERS

SINGLE STEP	Temperature [°C]	Time [min]	Quenching
AGE HARDENING	275.0	90.0	In air or in furnace