

GENERAL INFORMATION

General information		Commercial composition	
Production process	Universal	Silver (%)	16,00
Color	Red	Copper (%)	82,00
Color shade	Pink	Zinc (%)	2,00
Typology	Master alloy for gold		
Melting temperatures			
Liquidus [°C]	900.0		
Solidus [°C]	880.0		
Melting range [°C]	20.0		

GOLD line

FULL CHARACTERIZATION DATA

Color coordinates		Mechanical characteristics	
L*	80.1	As cast hardness [HV 0.2]	180.0
a*	7.6	Hardness after annealing [HV 0.2]	175.0
b*	16.6	Hardness after 70% area red. [HV 0.2]	280.0
c*	18.3	Single step age-hardening hardness [HV 0.2]	320.0
Physical characteristics		Tensile strength (Rm) [Mpa]	506.0
Density [g/cm ³]	14.9	Yield strength (Rp0.2) [MPa]	330.0
General characteristics		Elongation at rupture (A) [%]	29.0
As cast grain size [μm]	160.0		

Product applications

Sheet production
 TIG tube production
 CNC and lathe production
 Stamping production
 Age-hardening
 Blanking production
 Massive chain production
 Wire production
 Ingot casting
 Hollow chain production
 Continuous casting
 Production of tube from continuous casting
 Cladding production

RELATED PRODUCTS LIST
Related Products

CUT10X2	Copper tube, 10.0 mm diameter, 2.0 mm wall thickness, 2500 mm length, cold worked
FE5	Iron wire, 5.0 mm diameter, annealed
L1A	Powder for soldering of gold and silver chains
LSR490	Master alloy for soldering of 375-585-750‰ (9-14-18 Kt) red gold
LSR500	Master alloy for soldering of 585-750‰ (14-18 Kt) red gold
TOMBACP	Tombac plate, 10.0 mm thickness, 100.0 mm width

Alternative Products

OR129WE	Master alloy for mechanical working of 375-585‰ (9-14 Kt) red gold
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CASTING PROCESSING PARAMETERS

Pre-mixing temperature [°C] 1020.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660.0	720.0	990.0	1020.0
0.5 - 1.2 mm	580.0	650.0	970.0	990.0
> 1.2 mm	460.0	600.0	950.0	970.0

Trees without stones

Remove the flask within 1 minute after pouring, then quench immediately 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 min.), or in sulphuric acid (10% conc. at 50°C for 5 min.)

MECHANICAL WORKING PARAMETERS

Pre-mixing temperature [°C] 1020.0

Reductions

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

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot from [°C]	Ingot to [°C]
Temperatures	1000.0	1080.0	980.0	1020.0

MECHANICAL WORKING ANNEALING	Temp. from [°C]	Temp. to [°C]	Time [min]
<1 mm	620.0	660.0	25.0
1 - 5 mm	620.0	660.0	30.0
>5 mm	620.0	660.0	35.0

Mechanical working quenching

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

AGE HARDENING PROCESSING PARAMETERS

SINGLE STEP AGE-HARDENING TREATMENT	Temperature [°C]	Time [min]	Quenching
Age-hardening	300.0	90.0	Air or in furnace