

## TECHNICAL DATASHEET AND GUIDELINE

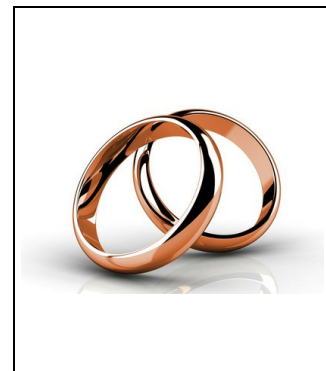
**OR134**  
Title 18 Kt

**All-purpose master alloy for 375-585-750‰ (9-14-18 Kt) red gold**

## GENERAL INFORMATION

Typology	Master alloy for gold
Production process	Universal
Color	Red
Color shade	Red
Density [g/cm <sup>3</sup> ]	14.7
Melting temperatures	
Solidus [°C]	905
Liquidus [°C]	920

Commercial composition	
Ag (%)	6
Cu (%)	92
Zn (%)	2



## FULL CHARACTERIZATION DATA

General characteristics	
As cast grain size [μm]	60
Color coordinates	
L*	86.6
a*	9.6
b*	15.4
c*	18.1

Mechanical characteristics	
Tensile strength (Rm) [MPa]	531
Yield strength (Rp0.2) [MPa]	378
Elongation at rupture (A) [%]	29
As cast hardness [HV 0.2]	187
Hardness after 70% area red. [HV 0.2]	289
Hardness after annealing [HV 0.2]	182
Single step age-hardening hardness [HV 0.2]	336

## PRODUCT APPLICATIONS

Casting in closed systems
Casting without stones
Continuous casting
Sheet production
Wire production
Massive chain production
Stamping production
TIG tube production
CNC and lathe production
Blanking production

## RELATED PRODUCTS

GFRED	Deep red gold flash plating bath
LSR490	Medium solder for 750‰ red gold

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## CASTING PROCESSING PARAMETERS

Casting temperatures	Metal - from [°C]	Metal - to [°C]	Flask - from [°C]	Flask - to [°C]
Thin (below 0.5 mm)	1020	1050	660	720
Medium (from 0.5 to 1.2 mm)	1000	1020	580	650
Thick (above 1.2 mm)	980	1000	460	600

### 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 water.

### Trees without stones

Remove the flask within 1 minute after pouring, then quench immediately in 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

Casting temperature	Metal - from [°C]	Metal - to [°C]	Recommended reductions	
Ingot making	1000	1040	Sheet - area or thickness [%]	70
Continuous casting	1020	1100	Wire - diameter [%]	45

Mechanical working recommended annealing	Temperature - from [°C]	Temperature - to [°C]	Time [min]
> 5 mm	620	660	35
1 - 5 mm	620	660	30
< 1 mm	620	660	25

## AGE HARDENING PROCESSING PARAMETERS

Single step age-hardening treatment	Temperature [°C]	Time [min]	Quenching
Age-hardening	250	90	Air or in furnace