

**GENERAL INFORMATION**
**General information**

Production process	Universal
Color	Red
Color shade	Red
Typology	Master alloy for gold

**Melting temperatures**

Liquidus [°C]	920.0
Solidus [°C]	905.0
Melting range [°C]	15.0

**Commercial composition**

Silver (%)	5,00
Copper (%)	92,00
Zinc (%)	3,00



GOLD line

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

L*	86.6
a*	9.6
b*	15.4
c*	18.1

**General characteristics**

As cast grain size [µm]	60
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**Mechanical characteristics**

As cast hardness [HV 0.2]	185.0
Hardness after annealing [HV 0.2]	180.0
Hardness after 70% area red. [HV 0.2]	290.0
Single step age-hardening hardness [HV 0.2]	335.0
Tensile strength (Rm) [Mpa]	531.0
Yield strength (Rp0.2) [MPa]	378.0
Elongation at rupture (A) [%]	29.0

**Product applications**

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

**RELATED PRODUCTS LIST**
**Related Products**

GFRED	Red gold flash solution for bath plating 0.8 g/l (ready-to-use)
LSR490	Master alloy for soldering of 375-585-750‰ (9-14-18 Kt) red gold

**CASTING PROCESSING PARAMETERS**

Pre-mixing temperature [°C] 1040.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660.0	720.0	1020.0	1050.0
0.5 - 1.2 mm	580.0	650.0	1000.0	1020.0
> 1.2 mm	460.0	600.0	980.0	1000.0

**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 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] 1040.0

**Reductions**

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

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot from [°C]	Ingot to [°C]
Temperatures	1020.0	1100.0	1000.0	1040.0

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	250.0	90.0	Air or in furnace