

**MASTER
ALLOY**
OR129W 750‰

MASTER ALLOY FOR MECHANICAL WORKING OF 375-585-750‰ (9-14-18 KT) RED GOLD

GENERAL INFORMATION
General information

Color	Red
Color shade	Pink
Production process	Mechanical working
Typology	Master alloy for gold

Melting temperatures

Liquidus [°C]	900.0
Solidus [°C]	880.0
Melting range [°C]	20.0

Commercial composition

Silver (%)	16,00
Copper (%)	82,00
Zinc (%)	2,00



GOLD line

FULL CHARACTERIZATION DATA
Color coordinates

L*	80.1
a*	7.6
b*	16.6
c*	18.3

Physical characteristics

Density [g/cm ³]	14.9
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General characteristics

As cast grain size [μm]	160.0
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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

Mechanical characteristics

As cast hardness [HV 0.2]	180.0
Hardness after annealing [HV 0.2]	175.0
Hardness after 70% area red. [HV 0.2]	280.0
Single step age-hardening hardness [HV 0.2]	320.0
Tensile strength (Rm) [Mpa]	506.0
Yield strength (Rp0.2) [MPa]	330.0
Elongation at rupture (A) [%]	29.0

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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MECHANICAL WORKING PARAMETERS
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