

GENERAL INFORMATION
General information

Typology	Master alloy for gold
Color	Yellow
Color shade	Light yellow
Production process	All-purpose
Grain refinement level	Medium
Deoxidation level	Minimum

Commercial composition (%)

AG	57.5
CU	39.0
ZN	3.5

Melting Temperatures

Solidus [°C]	875.0
Liquidus [°C]	900.0
Melting range [°C]	25.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
89.6	3.0	23.6	23.7	

Mechanical characteristics

As cast hardness [HV 0.2]	135.0
Hardness after 70% area red. [HV 0.2]	245.0
Hardness after annealing [HV 0.2]	145.0
Single step age-hardening hardness [HV 0.2]	170.0

Physical characteristics

Density [g/cm ³]	15.2
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Product applications

Continuous casting
 Ingot casting
 Massive chain production
 Hollow chain production
 Sheet production
 Cladding production
 Stamping production
 TIG tube production

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	660	720	1010	1040
0.5 - 1.2 mm	460	600	970	990
> 1.2 mm	580	650	990	1010

Trees without stones

Let the flask cool down for 3-4 minutes under inert atmosphere, then quench it in 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
1 - 5 mm	620	660	30
> 5 mm	620	660	35

Mechanical working quenching

Quench directly in water.

AGE HARDENING PROCESSING PARAMETERS

SINGLE STEP	Temperature [°C]	Time [min]	Quenching
AGE HARDENING	250.0	90.0	In air or in furnace