

GENERAL INFORMATION
General information

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

Commercial composition (%)

CU	69.0
ZN	20.0
AG	11.0

Melting Temperatures

Solidus [°C]	845.0
Liquidus [°C]	910.0
Melting range [°C]	65.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
87.0	0.7	19.6	19.6	

Mechanical characteristics

As cast hardness [HV 0.2]	105.0
Hardness after 70% area red. [HV 0.2]	255.0
Hardness after annealing [HV 0.2]	105.0
Single step age-hardening hardness [HV 0.2]	130.0
Tensile strength (Rm) [Mpa]	388.0
Yield strength (Rp0.2) [MPa]	182.0
Elongation at rupture (A) [%]	45.0

Physical characteristics

Density [g/cm ³]	10.9
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General characteristics

As cast grain size [μm]	210.0
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Product applications

Continuous casting
 Ingot casting
 Handmade production
 Massive chain production
 Massive chain production
 Wire production
 Sheet production
 Stamping production
 Stamping production

CASTING PROCESSING PARAMETERS
Pre-melting temperature

Temperature [°C] 1030

POURING TEMPERATURES

	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660	720	1000	1030
0.5 - 1.2 mm	580	650	980	1000
> 1.2 mm	460	600	960	980

Trees without stones

Let the flask cool down for 10-15 minutes, then quench it in water.

MECHANICAL WORKING PARAMETERS
Pre-melting temperature

Temperature [°C] 1030

Reductions

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

POURING TEMPERATURES
Countinous from [°C]
Countinous to [°C]
Ingot to [°C]
Ingot from [°C]

Temperatures	1010	1090	990	1030
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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 50%/50% water/alcohol solution or in water.

B145 375‰

ALL-PURPOSE MASTER ALLOY FOR 375-585‰ (9-14 KT) YELLOW GOLD

AGE HARDENING PROCESSING PARAMETERS

SINGLE STEP	Temperature [°C]	Time [min]	Quenching
AGE HARDENING	325.0	90.0	In air or in furnace