

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

Typology	Master alloy for gold
Color	Yellow
Color shade	Rich yellow
Production process	Casting
Grain refinement level	Medium
Deoxidation level	High

**Commercial composition (%)**

CU	50.0
AG	47.0
ZN	3.0

**Melting Temperatures**

Solidus [°C]	865.0
Liquidus [°C]	900.0
Melting range [°C]	35.0

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

L *	a*	b*	c*	Yellow Index
86.2	4.7	23.1	23.6	

**Mechanical characteristics**

As cast hardness [HV 0.2]	135.0
Hardness after 70% area red. [HV 0.2]	270.0
Hardness after annealing [HV 0.2]	155.0
Single step age-hardening hardness [HV 0.2]	245.0
Tensile strength (Rm) [Mpa]	380.0
Yield strength (Rp0.2) [MPa]	290.0
Elongation at rupture (A) [%]	40.0

**Physical characteristics**

Density [g/cm <sup>3</sup> ]	15.0
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**General characteristics**

As cast grain size [μm]	400.0
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**Product applications**

Stone-in-place casting  
 Casting in closed systems  
 Casting in open systems  
 Casting without stones  
 Age hardening

**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	1000	1030
> 1.2 mm	460	600	960	980
0.5 - 1.2 mm	580	650	980	1000

**Trees without stones**

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

**Stone-in-place casting trees**

Let the flask cool down for 30-45 minutes, 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.

**AGE HARDENING PROCESSING PARAMETERS**

SINGLE STEP	Temperature [°C]	Time [min]	Quenching
AGE HARDENING	275.0	90.0	In air or in furnace