

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

Color	Yellow
Typology	Pre-master alloy for gold
Color shade	Light yellow
Production process	Casting

**Melting temperatures**

Liquidus [°C]	850.0
Solidus [°C]	785.0
Melting range [°C]	65.0

**Commercial composition**

Copper (%)	80,00
Zinc (%)	20,00



GOLD line

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

L*	85.3
a*	2.2
b*	17.9
c*	18.0

**Physical characteristics**

Density [g/cm <sup>3</sup> ]	12.8
------------------------------	------

**Mechanical characteristics**

As cast hardness [HV 0.2]	140.0
Hardness after annealing [HV 0.2]	140.0
Hardness after 70% area red. [HV 0.2]	295.0
Single step age-hardening hardness [HV 0.2]	210.0
Tensile strength (Rm) [Mpa]	430.0
Yield strength (Rp0.2) [MPa]	250.0
Elongation at rupture (A) [%]	45.0

**Product applications**

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

**CASTING PROCESSING PARAMETERS**

Pre-mixing temperature [°C] 970.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660.0	720.0	950.0	980.0
0.5 - 1.2 mm	580.0	650.0	930.0	950.0
> 1.2 mm	460.0	600.0	910.0	930.0

**Trees without stones**

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

**Stone-in-place casting trees**

Let the flask cool down for 30-45 minutes, then 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] 970.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot from [°C]	Ingot to [°C]
Temperatures	950.0	1030.0	930.0	970.0

**PRODUCT TECHNICAL GUIDELINES****Product guide**

OG602AM is a pre-master alloy containing grain refiners and other additives, to be used for the production of master alloys for investment casting in 9-14 kt, yellow colour, by adding the desired quantity of silver. The recommended amount of silver to be added (expressed as g/kg) is reported below:

9 kt → Au 375 Ag 120 OG602AM 505

14 kt → Au 585 Ag 80 OG602AM 335