

GENERAL INFORMATION
General information

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

Melting temperatures

Liquidus [°C]	870.0
Solidus [°C]	810.0
Melting range [°C]	60.0

Commercial composition

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



GOLD line

FULL CHARACTERIZATION DATA
Color coordinates

L*	84.7
a*	1.1
b*	17.9
c*	17.9

Physical characteristics

Density [g/cm ³]	11.1
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Mechanical characteristics

As cast hardness [HV 0.2]	125.0
Hardness after annealing [HV 0.2]	135.0
Hardness after 70% area red. [HV 0.2]	275.0
Single step age-hardening hardness [HV 0.2]	250.0
Tensile strength (Rm) [Mpa]	467.0
Yield strength (Rp0.2) [MPa]	269.0
Elongation at rupture (A) [%]	32.0

Product applications

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

CASTING PROCESSING PARAMETERS

Pre-mixing temperature [°C] 990.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660.0	720.0	970.0	1000.0
0.5 - 1.2 mm	580.0	650.0	950.0	970.0
> 1.2 mm	460.0	600.0	930.0	950.0

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] 990.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot from [°C]	Ingot to [°C]
Temperatures	970.0	1050.0	950.0	990.0

OG602AM 375‰

PRE-MASTER ALLOY FOR CASTING OF 375-585‰ (9-14 KT) YELLOW GOLD

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