

**MASTER
ALLOY**
OG160A 375‰

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

GENERAL INFORMATION
General information

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

Commercial composition (%)

CU	69.0
AG	16.0
ZN	15.0

Melting Temperatures

Solidus [°C]	800.0
Liquidus [°C]	890.0
Melting range [°C]	90.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
88.3	1.7	17.6	17.7	

Mechanical characteristics

As cast hardness [HV 0.2]	115.0
Single step age-hardening hardness [HV 0.2]	160.0

Physical characteristics

Density [g/cm ³]	11.1
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Product applications

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

CASTING PROCESSING PARAMETERS
Pre-melting temperature

Temperature [°C] 1005

POURING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660	720	885	1015
> 1.2 mm	460	600	945	965
0.5 - 1.2 mm	580	650	965	985

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	250.0	90.0	In air or in furnace