

**MASTER
ALLOY**
C182N 750‰

MASTER ALLOY FOR CASTING OF 750‰ (18 KT) YELLOW GOLD

GENERAL INFORMATION
General information

Color	Yellow
Typology	Master alloy for gold
Color shade	Light yellow
Production process	Casting

Melting temperatures

Liquidus [°C]	910.0
Solidus [°C]	860.0
Melting range [°C]	50.0

Commercial composition

Silver (%)	58,00
Copper (%)	39,00
Zinc (%)	3,00



GOLD line

FULL CHARACTERIZATION DATA
Color coordinates

L*	87.9
a*	2.6
b*	23.5
c*	23.7

General characteristics

As cast grain size [µm]	300.0
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Mechanical characteristics

As cast hardness [HV 0.2]	130.0
Hardness after annealing [HV 0.2]	140.0
Hardness after 70% area red. [HV 0.2]	200.0
Single step age-hardening hardness [HV 0.2]	195.0
Tensile strength (Rm) [Mpa]	352.0
Yield strength (Rp0.2) [MPa]	249.0
Elongation at rupture (A) [%]	44.0

Product applications

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

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CASTING PROCESSING PARAMETERS

Pre-mixing temperature [°C] 1030.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660.0	720.0	1010.0	1040.0
0.5 - 1.2 mm	580.0	650.0	990.0	1010.0
> 1.2 mm	460.0	600.0	970.0	990.0

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.)

AGE HARDENING PROCESSING PARAMETERS

SINGLE STEP AGE-HARDENING TREATMENT	Temperature [°C]	Time [min]	Quenching
Age-hardening	250.0	90.0	Air or in furnace