

TECHNICAL DATASHEET AND GUIDELINE

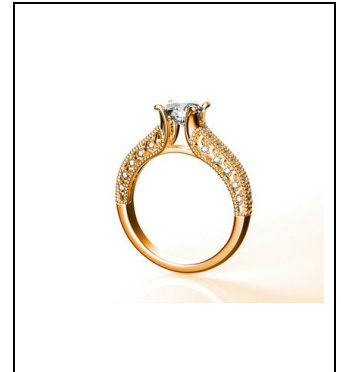
C182N1
Title 18 Kt

Master alloy for casting of 750‰ (18 Kt) yellow gold

GENERAL INFORMATION

Typology	Master alloy for gold
Production process	Casting
Color	Yellow
Color shade	Light yellow
Density [g/cm ³]	15.1
Melting temperatures	
Solidus [°C]	845
Liquidus [°C]	870

Commercial composition	
Ag (%)	49
Cu (%)	43
Zn (%)	8



FULL CHARACTERIZATION DATA

General characteristics	
As cast grain size [µm]	120
Fluidity (grid filling test) [%]	99
Color coordinates	
L*	86
a*	2.4
b*	21.4
c*	21.5

Mechanical characteristics	
Tensile strength (Rm) [MPa]	384
Yield strength (Rp0.2) [MPa]	250
Elongation at rupture (A) [%]	38
As cast hardness [HV 0.2]	149
Hardness after 70% area red. [HV 0.2]	261
Hardness after annealing [HV 0.2]	144
Single step age-hardening hardness [HV 0.2]	243

PRODUCT APPLICATIONS

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

RELATED PRODUCTS

C182D	Higher deoxidizers content
OG604Z	Mechanical working, 750‰ light yellow gold
LSG406B	Soft solder for 750‰ yellow gold
LSG409V	Medium solder for 750‰ yellow gold

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CASTING PROCESSING PARAMETERS

Casting temperatures	Metal - from [°C]	Metal - to [°C]	Flask - from [°C]	Flask - to [°C]
Thin (below 0.5 mm)	970	1000	650	720
Medium (from 0.5 to 1.2 mm)	950	970	580	650
Thick (above 1.2 mm)	930	950	460	580

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.)