

GENERAL INFORMATION
General information

Typology	Master alloy for gold
Color	White
Color shade	Premium white
Production process	Casting
Grain refinement level	Minimum
Deoxidation level	High

Commercial composition (%)

CU	57.8
NI	20.0
ZN	20.0
AG	2.2

Melting Temperatures

Solidus [°C]	895.0
Liquidus [°C]	975.0
Melting range [°C]	80.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
86.2	0.1	8.7	8.7	17.8

Mechanical characteristics

As cast hardness [HV 0.2]	125.0
Hardness after 70% area red. [HV 0.2]	280.0
Hardness after annealing [HV 0.2]	160.0
Single step age-hardening hardness [HV 0.2]	160.0
Tensile strength (Rm) [Mpa]	628.0
Yield strength (Rp0.2) [MPa]	432.0
Elongation at rupture (A) [%]	24.0

Physical characteristics

Density [g/cm³]	10.9
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General characteristics

As cast grain size [µm]	600.0
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Product applications

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

OB307W1 375‰

MASTER ALLOY FOR CASTING OF 375-585-750‰ (9-14-18 KT) WHITE GOLD

CASTING PROCESSING PARAMETERS
Pre-melting temperature

Temperature [°C] 1095

POURING TEMPERATURES

	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660	720	1075	1105
0.5 - 1.2 mm	580	650	1055	1075
> 1.2 mm	460	600	1035	1055

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 45-60 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.