

GENERAL INFORMATION
General information

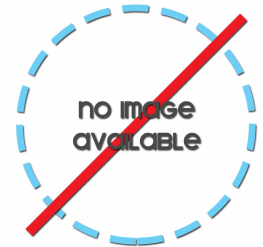
Color	White nickel-free
Production process	Universal
Color shade	Standard white
Typology	Master alloy for gold

Melting temperatures

Solidus [°C]	975.0
Melting range [°C]	75.0
Liquidus [°C]	1050.0

Commercial composition

Silver (%)	8,00
Copper (%)	51,00
Palladium (%)	41,00



Proderma

FULL CHARACTERIZATION DATA
Color coordinates

L*	81.5
a*	3.4
b*	8.4
c*	9.0
Yellow index	20.5

Mechanical characteristics

As cast hardness [HV 0.2]	175.0
Hardness after annealing [HV 0.2]	175.0
Hardness after 70% area red. [HV 0.2]	285.0
Single step age-hardening hardness [HV 0.2]	190.0
Tensile strength (Rm) [Mpa]	588.0
Yield strength (Rp0.2) [MPa]	333.0
Elongation at rupture (A) [%]	32.0

Product applications

Continuous casting
Casting without stones
Casting in closed systems
Ingot casting
Stamping production
CNC and lathe production
Sheet production

RELATED PRODUCTS LIST
Related Products

LSG406B	Master alloy for soldering of 750‰ (18 Kt) yellow gold
LSG409V	Master alloy for soldering of 750‰ (18 Kt) yellow gold

Alternative Products

OB315A	Nickel-free all-purpose master alloy for 585-750‰ (14-18 Kt) white gold
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CASTING PROCESSING PARAMETERS

Pre-mixing temperature [°C] 1170.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	700.0	730.0	1150.0	1170.0
0.5 - 1.2 mm	660.0	700.0	1130.0	1150.0
> 1.2 mm	600.0	660.0	1110.0	1130.0

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 5-10 min.), or in sulphuric acid (10% conc. at 50°C for 10 min.)

MECHANICAL WORKING PARAMETERS

Pre-mixing temperature [°C] 1170.0

Reductions

Sheet - area or thickness (%)	60.0
Wire - diameter (%)	40.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot from [°C]	Ingot to [°C]
Temperatures	1150.0	1230.0	1130.0	1170.0

MECHANICAL WORKING ANNEALING	Temp. from [°C]	Temp. to [°C]	Time [min]
<1 mm	730.0	770.0	30.0
1 - 5 mm	730.0	770.0	35.0
>5 mm	730.0	770.0	40.0

Mechanical working quenching

Quench directly in water

AGE HARDENING PROCESSING PARAMETERS

SINGLE STEP AGE-HARDENING TREATMENT	Temperature [°C]	Time [min]	Quenching
Age-hardening	450.0	90.0	Air or in furnace