

GENERAL INFORMATION
General information

Typology	Master alloy for silver
Color	Silver
Production process	All-purpose
Grain refinement level	Low
Deoxidation level	Low

Commercial composition (%)

CU	70.0
ZN	30.0

Melting Temperatures

Solidus [°C]	750.0
Liquidus [°C]	900.0
Melting range [°C]	150.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
92.5	-0.1	5.6	5.6	11.5

Mechanical characteristics

As cast hardness [HV 0.2]	60.0
Hardness after 70% area red. [HV 0.2]	160.0
Hardness after annealing [HV 0.2]	70.0
Double step age-hardening hardness [HV 0.2]	130.0
Single step age-hardening hardness [HV 0.2]	90.0
Tensile strength (Rm) [Mpa]	253.0
Yield strength (Rp0.2) [MPa]	134.0
Elongation at rupture (A) [%]	27.0

Physical characteristics

Density [g/cm ³]	10.3
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General characteristics

As cast grain size [μm]	700.0
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Product applications

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

CASTING PROCESSING PARAMETERS
Pre-melting temperature

Temperature [°C] 1015

POURING TEMPERATURES

	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	560	600	1000	1030
0.5 - 1.2 mm	520	560	980	1000
> 1.2 mm	480	520	960	980

Trees without stones

Let the flask cool down for 5 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

300.0

90.0

In air or in furnace

DOUBLE STEP
Temperature [°C]
Time [min]
Quenching
Homogenization

710.0

40.0

In water, immediate

Age-hardening

300.0

60.0

In air or in furnace