

**GENERAL INFORMATION**
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Color	Silver
Typology	Master alloy for silver
Production process	Casting

**Melting temperatures**

Liquidus [°C]	880.0
Solidus [°C]	710.0
Melting range [°C]	170.0

**Commercial composition**

Copper (%)	70,00
Zinc (%)	30,00



SILVER line

**FULL CHARACTERIZATION DATA**
**Color coordinates**

L*	93.6
a*	-0.5
b*	4.0
c*	4.0
Yellow index	8.3

**General characteristics**

As cast grain size [µm]	600.0
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**Mechanical characteristics**

As cast hardness [HV 0.2]	60.0
Hardness after annealing [HV 0.2]	65.0
Hardness after 70% area red. [HV 0.2]	150.0
Single step age-hardening hardness [HV 0.2]	85.0
Double step age-hardening hardness [HV 0.2]	115.0
Tensile strength (Rm) [Mpa]	229.0
Yield strength (Rp0.2) [MPa]	75.0
Elongation at rupture (A) [%]	34.0

**Product applications**

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

**CASTING PROCESSING PARAMETERS**

Pre-mixing temperature [°C] 1000.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	640.0	680.0	1010.0	1030.0
0.5 - 1.2 mm	560.0	640.0	990.0	1010.0
> 1.2 mm	500.0	540.0	970.0	990.0

**Trees without stones**

Let the flask cool down in the chamber for 1 minute after pouring. Take the flask out of the machine without shaking it, let it cool for 15 minutes in air, then quench it 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	300.0	90.0	Air or in furnace

DOUBLE STEP AGE-HARDENING TREATMENT	Temperature [°C]	Time [min]	Quenching
Solubilization	680.0	40.0	Water, immediate
Age-hardening	300.0	60.0	Air or in furnace