

GENERAL INFORMATION
General information

Color	Silver
Typology	Ready-to-use silver
Production process	Casting

Melting temperatures

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

Commercial composition

Silver (%)	93,00
Copper (%)	7,00


SILVER line
FULL CHARACTERIZATION DATA
Color coordinates

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

Physical characteristics

Density [g/cm ³]	10.3
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General characteristics

As cast grain size [μm]	600.0
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Product applications

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

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) [%]	35.0

CASTING PROCESSING PARAMETERS

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