

**S925PT 925‰**

ALL-PURPOSE MASTER ALLOY OF 800-925‰ SILVER

**GENERAL INFORMATION**
**General information**

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

**Commercial composition (%)**

CU	93.0
ZN	7.0

**Melting Temperatures**

Solidus [°C]	775.0
Liquidus [°C]	895.0
Melting range [°C]	120.0

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

L *	a*	b*	c*	Yellow Index
97.0	-0.1	3.7	3.7	6.7

**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]	75.0
Double step age-hardening hardness [HV 0.2]	145.0
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 <sup>3</sup> ]	10.3
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**General characteristics**

As cast grain size [μm]	100.0
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**Product applications**

Continuous casting  
 Ingot casting  
 Casting in closed systems  
 Casting without stones  
 Massive chain production  
 Hollow chain production  
 Wire production  
 Sheet production  
 Stamping production  
 TIG tube production

**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	640	680	995	1025
0.5 - 1.2 mm	560	640	975	995
> 1.2 mm	500	540	955	975

**Trees without stones**

Let the flask cool down for 5 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.

**MECHANICAL WORKING PARAMETERS**
**Pre-melting temperature**

Temperature [°C] 1015

**Reductions**

Wire - diameter (%)	45.0
Sheet - area or thickness (%)	70.0

**POURING TEMPERATURES**

Countinous from [°C]

Countinous to [°C]

Ingot to [°C]

Ingot from [°C]

Temperatures

995

1075

975

1015

**MECHANICAL WORKING ANNEALING**

Temp. from [°C]

Temp. to [°C]

Time [min]

&lt; 1 mm

560

620

20

1 - 5 mm

560

620

25

&gt; 5 mm

560

620

30

**Mechanical working quenching**

Quench directly in water.

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**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	730.0	40.0	In water, immediate
Age-hardening	300.0	60.0	In air or in furnace