

S925RT 925‰

ALL-PURPOSE MASTER ALLOY OF 925‰ SILVER

GENERAL INFORMATION
General information

Typology	Master alloy for silver
Color	Silver
Production process	All-purpose
Grain refinement level	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
97.6	-0.5	4.3	4.3	7.5

Mechanical characteristics

As cast hardness [HV 0.2]	65.0
Hardness after 70% area red. [HV 0.2]	155.0
Hardness after annealing [HV 0.2]	90.0
Double step age-hardening hardness [HV 0.2]	150.0
Single step age-hardening hardness [HV 0.2]	95.0
Tensile strength (Rm) [Mpa]	475.0
Yield strength (Rp0.2) [MPa]	267.0
Elongation at rupture (A) [%]	25.0

Physical characteristics

Density [g/cm ³]	10.3
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General characteristics

As cast grain size [μm]	330.0
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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
> 1.2 mm	500	540	955	975
0.5 - 1.2 mm	560	640	975	995

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]
< 1 mm	560	620	20
> 5 mm	560	620	25
1 - 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