

GENERAL INFORMATION
General information

Typology	Master alloy for platinum
Color	Platinum
Color shade	Premium white
Production process	All-purpose
Grain refinement level	Medium
Deoxidation level	Minimum

Commercial composition (%)

PD	75.8
CO	24.2

Melting Temperatures

Solidus [°C]	1720.0
Liquidus [°C]	1750.0
Melting range [°C]	30.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
87.2	0.5	3.8	3.8	8.1

Mechanical characteristics

As cast hardness [HV 0.2]	130.0
Hardness after 70% area red. [HV 0.2]	225.0
Hardness after annealing [HV 0.2]	135.0
Tensile strength (Rm) [Mpa]	380.0
Yield strength (Rp0.2) [MPa]	150.0
Elongation at rupture (A) [%]	26.0

Physical characteristics

Density [g/cm ³]	21.4
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General characteristics

As cast grain size [μm]	90.0
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Product applications

Centrifugal casting
Casting in closed systems
Sheet production

CASTING PROCESSING PARAMETERS
Pre-melting temperature

Temperature [°C]

POURING TEMPERATURES

	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	800	900	1840	1880
> 1.2 mm	700	800	1800	1840
0.5 - 1.2 mm	750	850	1820	1860

Trees without stones

Let the flask cool down for 3-4 minutes under inert atmosphere, then quench it in water.

Pickling

Use water jet or sandblaster.

MECHANICAL WORKING PARAMETERS
Pre-melting temperature

Temperature [°C]

Reductions

Wire - diameter (%)	40.0
Sheet - area or thickness (%)	60.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot to [°C]	Ingot from [°C]
Temperatures			1830	1870

MECHANICAL WORKING ANNEALING	Temp. from [°C]	Temp. to [°C]	Time [min]
< 1 mm	920	960	30
> 5 mm	920	960	45
1 - 5 mm	920	960	60

Mechanical working quenching

Air cool down to 550°C, then quench in water.