

**NF508 750‰**

NICKEL-FREE ALL-PURPOSE MASTER ALLOY FOR 585-750‰ (14-18 KT) WHITE GOLD

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

Typology	Master alloy for gold
Color	White, nickel-free
Color shade	Off-white
Production process	All-purpose
Grain refinement level	High
Deoxidation level	Minimum

**Commercial composition (%)**

AG	62.0
PD	30.8
ZN	4.0
CU	3.2

**Melting Temperatures**

Solidus [°C]	960.0
Liquidus [°C]	1070.0

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

L *	a*	b*	c*	Yellow Index
86.0	1.5	14.5		29.0

**Mechanical characteristics**

As cast hardness [HV 0.2]	100.0
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**Physical characteristics**

Density [g/cm <sup>3</sup> ]	15.7
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**Product applications**

Continuous casting  
 Ingot casting  
 Casting in closed systems  
 Casting without stones  
 Handmade production  
 Massive chain production  
 Wire production  
 Sheet production  
 Stamping production

**CASTING PROCESSING PARAMETERS**
**Pre-melting temperature**

Temperature [°C] 1190

**POURING TEMPERATURES**

	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660	730	1190	1220
> 1.2 mm	600	640	1150	1170
0.5 - 1.2 mm	640	660	1170	1190

**Trees without stones**

Let the flask cool down for 10-15 minutes, then quench it in water.

**Stone-in-place casting trees**

Let the flask cool down for 30-45 minutes, then quench it in water.

**Pickling**

Dip in RADIAL solution (50 g/l concentration at 60°C) for 5-10 minutes, or in sulphuric acid (10% concentration at 50°C) for 10 minutes.

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

Temperature [°C] 1190

**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	1170	1250	1150	1190

**MECHANICAL WORKING ANNEALING**

	Temp. from [°C]	Temp. to [°C]	Time [min]
< 1 mm	680	740	30
1 - 5 mm	680	740	35
> 5 mm	680	740	40

**Mechanical working quenching**

Quench directly in 50%/50% water/alcohol solution or in water.