

**GENERAL INFORMATION**
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Color	White
Color shade	Standard white
Production process	Mechanical working
Typology	Master alloy for gold

**Melting temperatures**

Liquidus [°C]	985.0
Solidus [°C]	945.0
Melting range [°C]	40.0

**Commercial composition**

Copper (%)	66,00
Nickel (%)	21,00
Zinc (%)	13,00



GOLD line

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

L*	85.4
a*	1.8
b*	9.7
c*	9.9
Yellow index	21.1

**General characteristics**

As cast grain size [μm]	40.0
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**Mechanical characteristics**

As cast hardness [HV 0.2]	145.0
Hardness after annealing [HV 0.2]	190.0
Hardness after 70% area red. [HV 0.2]	285.0
Single step age-hardening hardness [HV 0.2]	175.0
Tensile strength (Rm) [Mpa]	550.0
Yield strength (Rp0.2) [MPa]	306.0
Elongation at rupture (A) [%]	41.0

**Product applications**

Hollow chain production
Massive chain production
Wire production
Continuous casting
Ingot casting
Stamping production
TIG tube production
Cladding production
Sheet production

**RELATED PRODUCTS LIST**
**Related Products**

FE5	Iron wire, 5.0 mm diameter, annealed
L1A	Powder for soldering of gold and silver chains
LSB455	Master alloy for soldering of 585‰ (14 Kt) white gold
LSB475A	Master alloy for soldering of 750‰ (18 Kt) white gold
LSG409D	Master alloy for soldering of 585‰ (14 Kt) yellow gold
LSG409V	Master alloy for soldering of 750‰ (18 Kt) yellow gold

**Alternative Products**

NI1811-01	Low nickel release all-purpose master alloy for 750‰ (18 Kt) white gold
WE480CW1	Master alloy for mechanical working of 585-750‰ (14-18 Kt) white gold

**MECHANICAL WORKING PARAMETERS**

Pre-mixing temperature [°C] 1110.0

**Reductions**

Sheet - area or thickness (%) 70.0

Wire - diameter (%) 45.0

**POURING TEMPERATURES**

Countinous from [°C]

Countinous to [°C]

Ingot from [°C]

Ingot to [°C]

Temperatures

1085.0

1165.0

1065.0

1105.0

**MECHANICAL WORKING ANNEALING**

Temp. from [°C]

Temp. to [°C]

Time [min]

&lt;1 mm

660.0

700.0

30.0

1 - 5 mm

660.0

700.0

35.0

&gt;5 mm

660.0

700.0

40.0

**Mechanical working quenching**

Let cool in air down to 550°C, then quench in a 50% water/50% alcohol solution or in water

**AGE HARDENING PROCESSING PARAMETERS**
**SINGLE STEP AGE-HARDENING TREATMENT**

Temperature [°C]

Time [min]

Quenching

Age-hardening

275.0

90.0

Air or in furnace