

MASTER ALLOY

WB1482W 750‰

MASTER ALLOY FOR MECHANICAL WORKING OF 375-585-750‰ (9-14-18 Kt)
WHITE GOLD

GENERAL INFORMATION

General information

Color	White
Color shade	Off-white
Production process	Mechanical working
Typology	Master alloy for gold

Melting temperatures

Liquidus [°C]	925.0
Solidus [°C]	895.0
Melting range [°C]	30.0

Commercial composition

Copper (%)	68,00
Nickel (%)	16,00
Zinc (%)	16,00



GOLD line

FULL CHARACTERIZATION DATA

Color coordinates

L*	81.9
a*	2.4
b*	12.7
c*	12.9
Yellow index	27.7

Physical characteristics

Density [g/cm³]	14.7
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General characteristics

As cast grain size [µm]	90.0
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Product applications

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

Mechanical characteristics

As cast hardness [HV 0.2]	195.0
Hardness after annealing [HV 0.2]	190.0
Hardness after 70% area red. [HV 0.2]	310.0
Single step age-hardening hardness [HV 0.2]	280.0
Tensile strength (Rm) [Mpa]	540.0
Yield strength (Rp0.2) [MPa]	366.0
Elongation at rupture (A) [%]	35.0

RELATED PRODUCTS LIST

Related Products

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
L1A	Powder for soldering of gold and silver chains
LSB442	Nickel-free master alloy for soldering of 375‰ (9 Kt) white gold
LSB455	Master alloy for soldering of 585‰ (14 Kt) white gold

Alternative Products

NI1811-04	Low nickel release master alloy for mechanical working of 750‰ (18 Kt) white gold
NI1811-05	Low nickel release master alloy for mechanical working of 585‰ (14 Kt) white gold

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MECHANICAL WORKING PARAMETERS

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

1025.0

1105.0

1005.0

1045.0

MECHANICAL WORKING ANNEALING

Temp. from [°C]

Temp. to [°C]

Time [min]

<1 mm

660.0

700.0

30.0

1 - 5 mm

660.0

700.0

35.0

>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

Air or in furnace

Age-hardening

275.0

90.0