MASTER ALLOY

TECHNICAL SHEET

WB1482W 585‰

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

GENERAL INFORMATION

General information	
Color	White
Color shade	Standard white
Production process	Mechanical working
Typology	Master alloy for gold

Melting temperatures	
Liquidus [°C]	965.0
Solidus [°C]	925.0
Melting range [°C]	40.0

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

GOLD line

FULL CHARACTERIZATION DATA

Color coordinates	
L*	86.2
a*	1.8
b*	10.9
c*	11.0
Yellow index	23.1
Physical characteristics	
Density [g/cm³]	12.7
General characteristics	
As cast grain size [µm]	160.0

Mechanical characteristics	
As cast hardness [HV 0.2]	155.0
Hardness after annealing [HV 0.2]	200.0
Hardness after 70% area red. [HV 0.2]	280.0
Tensile strength (Rm) [Mpa]	582.0
Yield strength (Rp0.2) [MPa]	355.0
Elongation at rupture (A) [%]	31.0

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

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 (%)	60.0
Wire - diameter (%)	40.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot from [°C]	Ingot to [°C]
Temperatures	1065.0	1145.0	1045.0	1085.0

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

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