

**MASTER
ALLOY**
OB304R 375‰

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

GENERAL INFORMATION
General information

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

Melting temperatures

Solidus [°C]	995.0
Melting range [°C]	60.0
Liquidus [°C]	1055.0

Commercial composition

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



GOLD line

FULL CHARACTERIZATION DATA
Color coordinates

L*	83.0
a*	0.9
b*	7.7
c*	7.8
Yellow index	17.2

Mechanical characteristics

As cast hardness [HV 0.2]	150.0
Hardness after annealing [HV 0.2]	165.0
Hardness after 70% area red. [HV 0.2]	290.0
Tensile strength (Rm) [Mpa]	558.0
Yield strength (Rp0.2) [MPa]	321.0
Elongation at rupture (A) [%]	29.0

Product applications

TIG tube production
Stamping production
Sheet production
Hollow chain production
Ingot casting
Continuous casting
Cladding production
Massive chain 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] 1175.0

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

1155.0

1235.0

1135.0

1175.0

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