

**MASTER  
ALLOY**
**WD480C 585‰**

MASTER ALLOY FOR CASTING OF 585-750‰ (14-18 Kt) WHITE GOLD

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

Color	White
Color shade	Standard white
Typology	Master alloy for gold
Production process	Casting

**Melting temperatures**

Liquidus [°C]	940.0
Solidus [°C]	900.0
Melting range [°C]	40.0

**Commercial composition**

Copper (%)	60,00
Nickel (%)	20,00
Zinc (%)	20,00



GOLD line

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

L*	87.8
a*	0.7
b*	9.9
c*	9.9
Yellow index	20.2

**Physical characteristics**

Density [g/cm <sup>3</sup> ]	12.7
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**General characteristics**

As cast grain size [μm]	500.0
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**Product applications**

Casting in open systems
Stone-in-place casting
Casting without stones

**Mechanical characteristics**

As cast hardness [HV 0.2]	140.0
Hardness after annealing [HV 0.2]	175.0
Hardness after 70% area red. [HV 0.2]	295.0
Single step age-hardening hardness [HV 0.2]	175.0
Tensile strength (Rm) [Mpa]	594.0
Yield strength (Rp0.2) [MPa]	382.0
Elongation at rupture (A) [%]	28.0

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

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**

NI1811-03	Low nickel release master alloy for casting of 750‰ (18 Kt) white gold
OB307W1	Master alloy for casting of 375-585‰ (9-14 Kt) white gold

**CASTING PROCESSING PARAMETERS**

Pre-mixing temperature [°C] 1060.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	640.0	680.0	1040.0	1070.0
0.5 - 1.2 mm	580.0	620.0	1020.0	1040.0
> 1.2 mm	530.0	600.0	1000.0	1020.0

**Trees without stones**

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

**Stone-in-place casting trees**

Let the flask cool down for 45-60 minutes, then quench in water.

**Pickling**

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