

**MASTER  
ALLOY**
**WH85B2 750‰**

NICKEL-FREE MASTER ALLOY FOR CASTING OF 750‰ (18 KT) WHITE GOLD

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

Color	White nickel-free
Color shade	Off-white
Typology	Master alloy for gold
Production process	Casting

**Melting temperatures**

Solidus [°C]	910.0
Melting range [°C]	90.0
Liquidus [°C]	1000.0

**Commercial composition**

Silver (%)	35,00
Copper (%)	26,00
Palladium (%)	31,00
Zinc (%)	8,00



Proderma

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

L*	81.3
a*	3.2
b*	13.4
c*	13.7
Yellow index	29.8

**Physical characteristics**

Density [g/cm <sup>3</sup> ]	15.6
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**General characteristics**

As cast grain size [μm]	20.0
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**Product applications**

Casting without stones
Casting in closed systems
Casting in open systems

**Mechanical characteristics**

As cast hardness [HV 0.2]	155.0
Hardness after annealing [HV 0.2]	155.0
Hardness after 70% area red. [HV 0.2]	260.0
Single step age-hardening hardness [HV 0.2]	215.0
Tensile strength (Rm) [Mpa]	485.0
Yield strength (Rp0.2) [MPa]	278.0
Elongation at rupture (A) [%]	29.0

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

LSG409V	Master alloy for soldering of 750‰ (18 Kt) yellow gold
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**Alternative Products**

NF509	Nickel-free all-purpose master alloy for 750‰ (18 Kt) white gold
WH85B	Nickel-free master alloy for casting of 750‰ (18 Kt) white gold

**CASTING PROCESSING PARAMETERS**

Pre-mixing temperature [°C] 1125.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660.0	720.0	1100.0	1130.0
0.5 - 1.2 mm	580.0	650.0	1080.0	1100.0
> 1.2 mm	460.0	600.0	1060.0	1080.0

**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.)

**AGE HARDENING PROCESSING PARAMETERS**

SINGLE STEP AGE-HARDENING TREATMENT	Temperature [°C]	Time [min]	Quenching
	420.0	90.0	Air or in furnace