

TECHNICAL SHEET

## B182N 750‰

MASTER ALLOY FOR MECHANICAL WORKING OF 750‰ (18 KT) YELLOW GOLD

#### **GENERAL INFORMATION**

General information		
Color	Yellow	
Production process	Mechanical working	
Typology	Master alloy for gold	
Color shade	Light yellow	
Mailelin of Assessment and Assessment		
Meiting temperatures		
Liquidus [°C]	910.0	_
Liquidus [°C] Solidus [°C]	910.0 860.0	
Liquidus [°C] Solidus [°C] Melting range [°C]	910.0 860.0 50.0	

 Commercial composition

 Silver (%)
 58,00

 Copper (%)
 38,00

 Zinc (%)
 4,00



# GOLD line

### FULL CHARACTERIZATION DATA

Color coordinates			
L*	87.4		
a*	3.0		
a*	3.0		
b*	24.5		
C*	24.7		
Physical characteristics			
Density [g/cm <sup>3</sup> ]	15.0		

Mechanical characteristics	
As cast hardness [HV 0.2]	140.0
Hardness after annealing [HV 0.2]	150.0
Hardness after 70% area red. [HV 0.2]	245.0
Single step age-hardening hardness [HV 0.2]	215.0
Tensile strength (Rm) [Mpa]	402.0
Yield strength (Rp0.2) [MPa]	272.0
Elongation at rupture (A) [%]	41.0

Product applications	
Massive chain production	
Sheet production	
Wire production	
Continuous casting	
Ingot casting	
Hollow chain production	
Production of tube from continuous casting	
Stamping production	
CNC and lathe production	
TIG tube production	
Cladding production	
Blanking production	

#### **RELATED PRODUCTS LIST**

Related Product	S		
L1A	Powder for soldering of gold and silver chains		
LSG406B	Master alloy for soldering of 750‰ (18 Kt) yellow gold		
LSG409V	Master alloy for soldering of 750‰ (18 Kt) yellow gold		
Alternative Products			
OG604Z	Master alloy for mechanical working of 750‰ (18 Kt) yellow gold		
C182N	Master alloy for casting of 750‰ (18 Kt) yellow gold		

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#### **CASTING PROCESSING PARAMETERS**

Pre-mixing temperature [°C] 1030.0

CASTING TEMPERATURES	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]	
< 0.5 mm	620.0	700.0	990.0	1020.0	
0.5 - 1.2 mm	560.0	650.0	980.0	1000.0	
> 1.2 mm	500.0	620.0	970.0	980.0	

Trees without stones

Let the flask cool down for 5 minutes, then quench in water.

MECHANICAL WORKING PARAMETERS				
Pre-mixing temperature [°C]	1030.0		Reductions	
			Sheet - area or thickness	s (%) 75.0
			Wire - diameter (%)	45.0
POURING TEMPERATURES	Countinous from [°C]	Countinous to	[°C] Ingot from [	°C] Ingot to [°C]
Temperatures	1010.0	1090.0	990.0	1030.0
MECHANICAL WORKING ANNEAL	LING Temp. f	from [°C]	Temp. to [°C]	Time [min]
<1 mm	620.0		660.0	25.0
1 - 5 mm	620.0		660.0	30.0
>5 mm	620.0		660.0	35.0
Mechanical working quenching				

Quench directly in water

#### AGE HARDENING PROCESSING PARAMETERS

SINGLE STEP AGE-HARDENING TREATMENT	Temperature [°C]	Time [min]	Quenching
Age-hardening	275.0	90.0	Air or in furnace

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