

GENERAL INFORMATION
General information

Typology	Master alloy for gold
Color	Yellow
Color shade	Rich yellow
Production process	All-purpose
Grain refinement level	High
Deoxidation level	Minimum

Commercial composition (%)

CU	68.0
ZN	16.0
AG	16.0

Melting Temperatures

Solidus [°C]	840.0
Liquidus [°C]	880.0
Melting range [°C]	40.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
87.7	3.0	18.6	18.8	

Mechanical characteristics

As cast hardness [HV 0.2]	120.0
Hardness after 70% area red. [HV 0.2]	250.0
Hardness after annealing [HV 0.2]	130.0
Single step age-hardening hardness [HV 0.2]	150.0
Tensile strength (Rm) [Mpa]	466.0
Yield strength (Rp0.2) [MPa]	252.0
Elongation at rupture (A) [%]	40.0

Physical characteristics

Density [g/cm ³]	12.8
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General characteristics

As cast grain size [μm]	60.0
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Product applications

Continuous casting
 Ingot casting
 CNC and lathe production
 Hollow chain production
 Wire production
 Sheet production
 Cladding production
 Production of tube from continuous casting
 TIG tube production

Y144W 585‰

ALL-PURPOSE MASTER ALLOY FOR 375-585‰ (9-14 KT) YELLOW GOLD

CASTING PROCESSING PARAMETERS
Pre-melting temperature

Temperature [°C] 1000

POURING TEMPERATURES

	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660	720	970	1000
0.5 - 1.2 mm	580	650	950	970
> 1.2 mm	460	600	930	950

Trees without stones

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

MECHANICAL WORKING PARAMETERS
Pre-melting temperature

Temperature [°C] 1000

Reductions

Wire - diameter (%)	45.0
Sheet - area or thickness (%)	75.0

POURING TEMPERATURES

Countinous from [°C]	Countinous to [°C]	Ingot to [°C]	Ingot from [°C]
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Temperatures	980	1060	960	1000
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MECHANICAL WORKING ANNEALING

	Temp. from [°C]	Temp. to [°C]	Time [min]
< 1 mm	620	660	25
1 - 5 mm	620	660	30
> 5 mm	620	660	35

Mechanical working quenching

Quench directly in water.

**MASTER
ALLOY****Y144W 585‰**

ALL-PURPOSE MASTER ALLOY FOR 375-585‰ (9-14 KT) YELLOW GOLD

AGE HARDENING PROCESSING PARAMETERS**SINGLE STEP****Temperature [°C]****Time [min]****Quenching****AGE HARDENING**