

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

**Commercial composition (%)**

CU	73.5
AG	13.5
ZN	13.0

**Melting Temperatures**

Solidus [°C]	850.0
Liquidus [°C]	890.0
Melting range [°C]	40.0

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

L *	a*	b*	c*	Yellow Index
87.5	4.3	18.5	19.0	

**Mechanical characteristics**

As cast hardness [HV 0.2]	135.0
Hardness after 70% area red. [HV 0.2]	250.0
Hardness after annealing [HV 0.2]	145.0
Single step age-hardening hardness [HV 0.2]	150.0
Tensile strength (Rm) [Mpa]	448.0
Yield strength (Rp0.2) [MPa]	234.0
Elongation at rupture (A) [%]	41.0

**Physical characteristics**

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

As cast grain size [μm]	70.0
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**Product applications**

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

**CASTING PROCESSING PARAMETERS**
**Pre-melting temperature**

Temperature [°C] 1010

**POURING TEMPERATURES**

	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660	720	980	1010
0.5 - 1.2 mm	580	650	960	980
> 1.2 mm	460	600	940	960

**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] 1010

**Reductions**

Wire - diameter (%)	45.0
Sheet - area or thickness (%)	70.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot to [°C]	Ingot from [°C]
Temperatures	990	1070	970	1010

MECHANICAL WORKING ANNEALING	Temp. from [°C]	Temp. to [°C]	Time [min]
< 1 mm	640	680	25
1 - 5 mm	640	680	30
> 5 mm	640	680	35

**Mechanical working quenching**

Quench directly in 50%/50% water/alcohol solution or in water.

**MASTER  
ALLOY****Y145T 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**