

**MASTER  
ALLOY**
**Y144W 585‰**

MASTER ALLOY FOR MECHANICAL WORKING OF 375-585‰ (9-14 KT) YELLOW GOLD

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

Color	Yellow
Color shade	Rich yellow
Production process	Mechanical working
Typology	Master alloy for gold

**Melting temperatures**

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

**Commercial composition**

Silver (%)	16,00
Copper (%)	68,00
Zinc (%)	16,00



GOLD line

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

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

**Physical characteristics**

Density [g/cm <sup>3</sup> ]	12.8
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**General characteristics**

As cast grain size [μm]	60.0
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**Product applications**

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

**Mechanical characteristics**

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

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

CUT10X2	Copper tube, 10.0 mm diameter, 2.0 mm wall thickness, 2500 mm length, cold worked
L1A	Powder for soldering of gold and silver chains
LSG409	Master alloy for soldering of 585‰ (14 Kt) yellow gold
LSG409D	Master alloy for soldering of 585‰ (14 Kt) yellow gold
LSG417F	Master alloy for soldering of 375-585‰ (9-14 Kt) yellow gold
LSG419	Master alloy for soldering of 375‰ (9Kt) yellow gold

**Alternative Products**

C141US	Master alloy for casting of 375-585‰ (9-14 Kt) yellow gold
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**MECHANICAL WORKING PARAMETERS**

Pre-mixing temperature [°C] 1000.0

**Reductions**

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

**POURING TEMPERATURES**

Countinous from [°C]

Countinous to [°C]

Ingot from [°C]

Ingot to [°C]

Temperatures

980.0

1060.0

960.0

1000.0

**MECHANICAL WORKING ANNEALING**

Temp. from [°C]

Temp. to [°C]

Time [min]

&lt;1 mm

620.0

660.0

25.0

1 - 5 mm

620.0

660.0

30.0

&gt;5 mm

620.0

660.0

35.0

**Mechanical working quenching**

Quench directly in water