

LSG412 750‰

MASTER ALLOY FOR SOLDERING OF 585-750‰ (14-18 KT) YELLOW GOLD

GENERAL INFORMATION
General information

Typology	Gold solder
Color	Yellow
Color shade	Greenish yellow
Production process	Brazing
Grain refinement level	Minimum
Deoxidation level	Minimum

Commercial composition (%)

AG	34.0
CU	34.0
ZN	24.0
IN	8.0

Melting Temperatures

Solidus [°C]	735.0
Liquidus [°C]	790.0
Melting range [°C]	55.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
87.4	-0.7	20.2	20.2	

Mechanical characteristics

As cast hardness [HV 0.2]	150.0
Hardness after 70% area red. [HV 0.2]	220.0
Hardness after annealing [HV 0.2]	155.0
Tensile strength (Rm) [Mpa]	374.0
Yield strength (Rp0.2) [MPa]	276.0
Elongation at rupture (A) [%]	34.0

Physical characteristics

Density [g/cm ³]	14.7
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General characteristics

As cast grain size [μm]	240.0
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Product applications

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MECHANICAL WORKING PARAMETERS
Pre-melting temperature

Temperature [°C] 910

Reductions

Wire - diameter (%)	15.0
Sheet - area or thickness (%)	40.0

POURING TEMPERATURES

Countinous from [°C]

Countinous to [°C]

Ingot to [°C]

Ingot from [°C]

Temperatures

890

970

870

910

MECHANICAL WORKING ANNEALING

Temp. from [°C]

Temp. to [°C]

Time [min]

< 1 mm

530

560

20

> 5 mm

530

560

25

1 - 5 mm

530

560

30

Mechanical working quenching

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

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Preliminary checks

Please note that in order to correctly evaluate the alloy's hardness to solderability, it is advised to make a numerical calculation by subtracting the base metal solidus temperature value from the solder liquidus temperature value. The higher the number resulting, the more solderable (or the less hard) the alloy can be considered. Please refer to the technical guideline for solders available in the website for further information.