LEGOR®

MASTER ALLOY

TECHNICAL SHEET

JOINING line

LSG409 750‰

MASTER ALLOY FOR SOLDERING OF 585‰ (14 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	32.0
CU	35.0
ZN	23.0
IN	10.0

Melting Temperatures	
Solidus [°C]	720.0
Liquidus [°C]	790.0

FULL CHARACTERIZATION DATA

Color coordinates

L *	a*	b*	c*	Yellow Index
87.5	-0.4	20.0		

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/cm³]	14.7

Product applications

13/04/2023

LEGOR GROUP S.P.A. - Via del Lavoro, 1 - 36050 (VI) - Italy - Tel. +39 0444 467911 - Fax +39 0444 660677 - info@legor.com - www.legor.com

LSG409 750‰

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

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.

13/04/2023

LEGOR GROUP S.P.A. - Via del Lavoro, 1 - 36050 (VI) - Italy - Tel. +39 0444 467911 - Fax +39 0444 660677 - info@legor.com - www.legor.com

LSG409 750‰

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

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.

LEGOR GROUP S.P.A. - Via del Lavoro, 1 - 36050 (VI) - Italy - Tel. +39 0444 467911 - Fax +39 0444 660677 - info@legor.com - www.legor.com