LEGOR MASTER ALLOY

TECHNICAL SHEET

JOINING line

LSR490 750‰

MASTER ALLOY FOR SOLDERING OF 375-585-750‰ (9-14-18 KT) RED GOLD

GENERAL INFORMATION

General information	
Typology	Gold solder
Color	Red
Color shade	Pink
Production process	Brazing
Grain refinement level	Minimum
Deoxidation level	Minimum

Commercial composition (%)	
CU	74.0
IN	20.0
AG	5.0
ZN	1.0

Melting Temperatures	
Solidus [°C]	700.0
Liquidus [°C]	825.0
Melting range [°C]	125.0

FULL CHARACTERIZATION DATA

Color coordinates

L *	a*	b*	c*	Yellow Index
82.0	4.2	18.0	18.5	

Mechanical characteristics	
As cast hardness [HV 0.2]	140.0
Hardness after 70% area red. [HV 0.2]	210.0
Hardness after annealing [HV 0.2]	140.0
Tensile strength (Rm) [Mpa]	396.0
Yield strength (Rp0.2) [MPa]	265.0
Elongation at rupture (A) [%]	44.0

Physical characteristics	
Density [g/cm³]	14.4

General characteristics	
As cast grain size [µm]	300.0

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

LSR490 750‰

MASTER ALLOY FOR SOLDERING OF 375-585-750‰ (9-14-18 KT) RED GOLD

MECHANICAL WORKING PARAMETERS

Pre-melting temperature	
Temperature [°C]	945

Reductions	
Wire - diameter (%)	40.0
Sheet - area or thickness (%)	60.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot to [°C]	Ingot from [°C]
Temperatures	925	1005	905	945

MECHANICAL WORKING ANNEALING	Temp. from [°C]	Temp. to [°C]	Time [min]
< 1 mm	540	570	20
1 - 5 mm	540	570	25
> 5 mm	540	570	30

Mechanical working quenching

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

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

LSR490 750‰

MASTER ALLOY FOR SOLDERING OF 375-585-750‰ (9-14-18 KT) RED 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