MASTER ALLOY

TECHNICAL SHEET

LSB475A 750‰

MASTER ALLOY FOR SOLDERING OF 750‰ (18 KT) WHITE GOLD

GENERAL INFORMATION

General information	
Color	White
Production process	Soldering and brazing
Typology	Solder for gold
Color shade	Off-white
Melting temperatures	
Melting range [°C]	90.0
Liquidus [°C]	785.0
Solidus [°C]	695.0
Working temperatures	
Working temperature [°C]	770.0

Commercial composition	
Silver (%)	12,00
Nickel (%)	12,00
Copper (%)	38,00
Zinc (%)	28,00
Indium (%)	10,00

JOINING line

FULL CHARACTERIZATION DATA

Color coordinates	
L*	84.6
a*	-0.5
b*	14.4
c*	14.4
Yellow index	27.5
Physical characteristics	
Density [g/cm³]	14.3
General characteristics	
As cast grain size [µm]	230.0

Mechanical characteristics	
Elongation at rupture (A) [%]	43.0
Yield strength (Rp0.2) [MPa]	332.0
Tensile strength (Rm) [Mpa]	422.0
As cast hardness [HV 0.2]	190.0

Print Date 03/03/2020

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

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MECHANICAL WORKING PARAMETERS

Pre-mixing temperature [°C]	905.0

Reductions	
Wire - diameter (%)	30.0
Sheet - area or thickness (%)	50.0

POURING TEMPERATURES	**Countinous from [°C]**	**Countinous to [°C]**	**Ingot from [°C]**	**Ingot to [°C]**
Temperatures	885.0	965.0	905.0	865.0

MECHANICAL WORKING ANNEALING	**Temp. from [°C]**	**Temp. to [°C]**	**Time [min]**
<1 mm	530.0	560.0	20.0
1 - 5 mm	530.0	560.0	25.0
>5 mm	530.0	560.0	30.0

Mechanical working quenching

Let cool in air down to 550°C, then quench in a 50% water/50% alcohol solution or in water

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PRODUCT TECHNICAL GUIDELINES

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.

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