



ELSOLD® Soft-Solders

Our Product Range

Leadfree Soft-Solders
Solder Wires, flux-cored and solid
Solder Bars
Special Solders
Deoxidizing Tablets
Fluxes
Solder Pastes
Low Melting Alloys
Solder Preforms and Anodes



ELSOLD[®] advantage by innovation

Soft - Solders for special Soldering Technology

Increasing miniaturizing and requirements for long - term reliability of the entire electronics with extended effective power require choice solder quality. Therefore ELSOLD[®] solders are exclusively made of carefully selected High purity metals of first melt.

ELSOLD[®] Machine Solders

Wave Soldering Machines
Solder circulated Systems
with and without inert gas
phase

Alloy*	Melting Point / Melting Range	Operation temperature (recommended)
S-Sn60 Pb40 P	183°C-190°C	240°C-260°C
S-Sn63 Pb37 P	183°C	240°C-260°C
S-Sn64 Pb36 P	183°C-185°C	240°C-260°C
S-Sn62 Pb36 Ag2	178°C-180°C	240°C-260°C

*further alloys on inquiry

ELSOLD[®] High Temperature Solders

Dip Soldering
Dip Tinning
High temperature
range application

Alloys**	Melting Point / Melting Range	Operation temperature (recommended)
S-Sn60 PbCuP/HTF	183°C-190°C	240°C-350°C
S-Pb91 Sn8 Sb1	280°C-305°C	350°C-450°C
S-Pb93 Sn5 Ag2	296°C-301°C	über 450°C
S-Pb95 Sn3 Ag2	304°C-310°C	über 450°C
S-Pb97 Ag3	305°C	über 450°C

**as per internal alloy catalogue further alloys on inquiry

ELSOLD[®] Solders Special

Lead-free soft solders
Low-melting alloys
solders for static solder
baths

Suitable solders are available for application specific and special manufacturing processes to meet your requirements. Further details to be taken from the technical data sheet.

ELSOLD[®] Deoxidizing Tablets

For optimum surface
tension in the solder bath

Advantages: minimized formation of oxides and solder bridges. Further details to be taken from the technical data sheet.

Service

Technical advice and process support. Problem related research and development. Return and recycling of waste metal. Analysis report of solder baths and evaluation. Certificates of conformance DIN / EN 10204.

Delivery Standards

Standard	Width / Height mm	Length mm	Weight kg
Triangular Bars	8x10	400	bundles of 25 kg
Solder Blocks with Suspension Eye	50x18 50x20	600 490	approx 4,3 kg approx 3,7 kg
Clippings for start-up of Soldering Machines	8x10	ca. 40	
Further Design	Thick and Wide Bars, Flat Strips, Rods, Thin Bars, Threads, Solid Wires and so forth on inquiry.		

Valid Standards

DIN 1707-100, DIN EN 29 453

In addition we are manufacturing in accordance with all common foreign standards. Beyond existing standards special alloys can be made available upon customer's specification.

**Fluxes
for Soft Soldering**

No - clean
halide-free
resin-free
free from residue
extreme
low
Solids Content

Halide-free
1.1.3.

According to ECSS Standard
1.1.1.

Halide-Containing
1.1.2.

Special-Fluxes
plasticized

Application

Machine Soldering of printed circuit boards
General applications

European Cooperation for Space Standardization

General applications by Electric Industry

Application Method

Foam
Spray
and
Dip Fluxing

Spray
and
Dip Fluxing

Foam
Spray
and
Dip Fluxing

Soldering Equipment

Wave and Planar Soldering System
Dip and Tinning Bath

Result

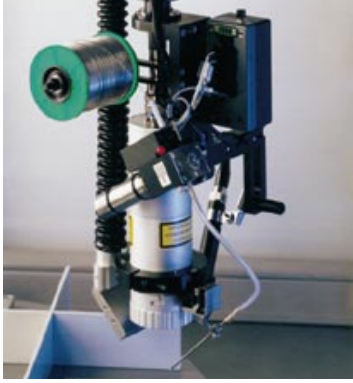
Optimum Solder and Wetting Properties
Reduction of Icicle Bridge Formation
Low Solder Consumption

Service

Development, Test and Optimization of Fluxes According to Customers Requirements
Advice and Support of Users

Data sheets are available for the Individual Fluxing Agents.

ELSOLD[®] Soft Solder Wires and Flux Cored Wires



Continuous Quality demands are influencing requirements on electronic tools and systems considerably.

Due the increasing use of assembly elements with more precise connexions on the one side and reliability of the product asked for on the other hand optimum soldering capability becomes more and more important. Substantial criterions for this in conformity with environment and recycling - are choice of adequate solders and fluxes.

Everybody having in mind to participate in the technical future has to meet this task.

JL Goslar will assist you to find your individual soft solder product.

Class	Alloy symbol	Composition in % by weight					Melting range °C	Density g/cm ³	Use
		Sn	Pb	Cu	Ag	others			
Copper protective solders	S-Sn60Pb38Cu2	60	38	2			183-190	8,5	Electrical equipment, electronics, printed circuit boards
	S-Sn62Pb36Ag2	62	36		2		178-180	8,4	SMT
Silver protective solders	S-Sn60Pb36Ag4	60	36		4		178-180	8,5	for capacitor coatings, oscillating crystals, electrical equipment, printed circuit boards
	S-Pb60Sn40	40	60				183-235	9,3	Special solder, component fabrication
High purity soft solders	S-Sn70Pb30	70	30				183-192	8,2	Special solder, component fabrication
	S-Sn63Pb37	63	37				183	8,4	printed circuit boards, SMT
	S-Sn60Pb40	60	40				183-190	8,5	Fine solder, tinning, printed circuit boards
	S-Pb50Sn50	50	50				183-215	8,9	tinned or copper - plated parts
	S-Sn90Pb10	90	10				183-215	7,6	Special solder
	S-Sn50Pb32Cd18	50	32			18Cd	145	8,5	particularly gentle soldering on silver plated vceramics p.c. boards
Lead-free	S-Sn96Ag4	96			4		221	7,3	micro electronics
Lead-free	S-Sn95Sb5	95				5Sb	230-240	7,3	Heat resistant solder, electrical industry, electromotors
	S-Pb91Sn8Sb1	8	91			1Sb	280-305	10,6	Heat resistant solder, electrical industry, electromotors
	S-Pb93Sn5Ag2	5	93		2		296-301	11,2	Heat resistant solder, electrical industry, electromotors
	S-Pb95Sn3Ag2	3	95		2		304-310	11,0	Heat resistant solders, electrical industry, electromotors
	S-Pb97Ag3		97		3		305	11,1	
Heat resistant ELSOLD [®] soft solders	Typ W	97		3			230-250	7,3	with high leakage resistance high resistance to centrifugal forces
	Typ W2	94,9			5	0,1In	220-235	7,3	

Further alloys, special solders for lead-free soldering and high temperature solder joints on inquiry.

Class according to DIN EN 29 454-1	Designation JL Goslar	Halogen content max. %	Corrosion test to DIN EN ISO 9455-12	Type description and features
1.1.1. (F-SW 31)	K	0	none	Pure natural rosin WW
1.1.3. (F-SW 32)	C	0	none	Made from modified rosin with added organic, halide-free activator substances
	C2	0	none	
	C3	0	none	
	C4	0	none	Special rosin flux, only suitable for ELSOLD Fluxpor-Solder wire
	C5	0	none	on basis of modified resins for SMT
	FS 28	0	none	No - clean
2.2.3. (F-SW 34)	105	0	none	Low residue
1.1.2. (F-SW 26)	A2	0,50	none on NF-metals	Made from modified rosin with additives of carboxylic acid and organic, halide-containing activator substances
	A3 / A3S	0,75	to be examined	
	A4 / A4S	1,00	to be examined	
2.1.3. (F-SW 24)	H	0	to be examined	Made from urea with added halide-free organic acids
2.1.2. (F-SW 25)	T	2,00	to be examined	Produced on basis of organic carboxylic acid

Flux content of cored solders

Selection: from 0,5% - 4,5% in steps of 0,5%

This information applies to solders with one flux core only. Upon request solder wires with 3, 4, or 5 flux cores can be supplied.

Delivery Standards:

Wire Diameter:	from 0,25 mm and upwards			
Delivery Standard: one-way plastic reels	100g	250g	500g	1kg
self-supporting rings:	100g	250g	500g	1kg
other reels on application	5kg	10kg	15kg	20kg

Soft Solders to International Standards

In addition to the soft solders and solder wires to DIN EN 29 453 and DIN 1707 - 100 and EN ISO 12224-1 we manufacture to the most important International Standards.

J - STD - 004 / 005 / 006
 ASTM B 32 - 00
 ESA PSS - 01 - 708 / ECSS - Q - 70 - 08 A
 ECSS - Q - 70 - 38 A
 JIS Z 3282 - 99

ELSOLD® soft solders have also proved their value in space. All space vehicles launched by the EUROPEAN SPACE AGENCY (ECSS) are soldered with ELSOLD® soft solders to the ECSS solder standard and have won a claim for their great reliability and long service life.



Further Product Divisions



Lead/Steel Apparatus



Battery Products and Castings



Plastic Apparatus



Radiation Protection and Semi-products



Building Products



Technical Foils made of Lead and Tin

Get to know us at our website and send us an e-mail

www.jlgoslar.de



info@jlgoslar.de



JL Goslar

Head office and production plant

Postfach 21 29 • 38611 Goslar
Im Schleeke 108 • 38640 Goslar
Telefon +49 53 21 - 7 54 - 0
Telefax +49 53 21 - 7 54 - 222
E-Mail info@jlgoslar.de
Internet www.jlgoslar.de

Hamburg plant

Postfach 54 07 29 • 22507 Hamburg
Schnackenburgallee 221 • 22525 Hamburg
Telefon +49 40 - 54 00 95 - 0
Telefax +49 40 - 54 00 95 - 44