

Technical Product Information

ELSOLD Tin-Lead Solders

Increasing miniaturization and the demand for long term reliability of electronic systems, paired with higher power dissipation require first class solder quality. ELSOLD Tin-Lead solders are exclusively made from carefully selected high-purity metals of first melt (only tin qualities from carefully selected sources and high-purity lead of min 99.99 % are used).

Standard Alloys

Alloy	Sn [%]	Pb [%]	Ag [%]	Cu [%]	Density [g/cm ³]	Melting point/-range [°C]
Sn60Pb40Cu*	60	40		0.1-0.2	8.5	183 – 190
Sn60Pb40CuP*	60	40		0.1-0.2	8.5	183 – 190
Sn63Pb37P*	63	37			8.4	183
Sn60Pb40P*	60	40			8.5	183 – 191
Sn62Pb36Ag2	62	36	2		8.4	179
Sn60Pb40	60	40			8.5	183 – 191
Sn63Pb37	63	37			8.4	183

* According to DIN 1707-100

Alloys meet and exceed requirements of DIN EN ISO 9453 and DIN EN 61190-1-3 as well as DIN 1707-100. Typical impurity levels are well below limits of common standards.

Further alloys are available upon special request.

Delivery Forms

Standard	Dimensions [mm]	Weight / unit
Solder bars with suspension eyelet	50 (W) x 18 (H) x 600 (L)	approx. 4.3 kg
	50 (W) x 20 (H) x 490 (L)	approx. 3.7 kg
Triangular bars	8 (W) x 10 (H) x 400 (L)	Bundles of 25 kg
Clippings	8 (W) x 10 (H) x 30 (L)	Bulk material

More designs available including wires, threads, rods, etc...

Shelf Life

Materials can be stored for a minimum of 5 years in a clean, cool and dry environment.

Use

ELSOLD Tin-Lead Solders are suitable for any soldering process. They are suitable especially for wave and drag soldering equipment, in dip soldering machines and for hot-air surface levelling.

The high purity of ELSOLD Tin-Lead Solders guarantees a virtually oxide-free solder surface and – in consequence – an optimum solder joint.

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Service

TAMURA ELSOLD offers analytical service for your solder pot. Within 48 hrs at the latest our laboratory will advise customers of the exact composition and impurity levels of the submitted sample

TAMURA ELSOLD also offers to dispose of unusable spent solder materials and credit a residual value to the customer. However, a minimum of 300 kg per lot should be observed for economical reasons. Please contact your partner at TAMURA ELSOLD for further information.

Safety and Health

For information regarding health and safety please refer to the relevant material safety data sheet.

Specification

Solder Composition	DIN EN ISO 9453 [%]	
Sn - Tin	Nominal Value \pm 0.5	
Pb - Lead	Remainder	
Sb - Antimony	< 0.05	
Cd - Cadmium	< 0.001	
Zn - Zink	< 0.001	
Al - Aluminum	< 0.001	
Bi - Bismuth	< 0.05	
As - Arsenic	< 0.03	
Fe - Iron	< 0.02	
Ni - Nickel	< 0.01	
Cu - Copper	0.1 – 0.2*)	Else < 0.05
In - Indium	< 0.05	
Ag - Silver	Nominal Value \pm 0.2	Else < 0.05
P - Phosphorous	0.001-0.004**)	Else < 0.001

*) for Sn60Pb40Cu and Sn60Pb40CuP

***) for Sn60Pb40CuP, Sn63Pb37P and Sn60Pb40P

Important information: The above information was put together based on the data available to the producer at the time of print. The technical data contained herein are consistent with the properties of the material but should not be used for the preparation of specification as it is intended for reference only.