

SAC0307-1101

Lead-free Solder Bar

The SAC0307-1101 Lead-free solder bar is composed primarily of high-purity tin and is manufactured using cutting-edge professional lead-free solder equipment and top-tier technology, incorporating specific arts and crafts. The addition of microelements serves to prevent the rapid expansion of micro cracks in the brittle interface structure and enhance the creep-fatigue lifespan of joints. This product represents an environmentally friendly lead-free alloy solder bar with outstanding soldering capabilities for use in lead-free process control.

FEATURES

- High purity, low metal impurity & content of oxide
- The molten tin surface is smooth, and flat, has low viscosity, and has excellent mobility.
- Unique high oxidation resistance, a very small amount of tin slag.
- Low surface tension, high wetting ability, excellent solder ability with shiny and chubby solder joint.
- Materials comply with RoHS requirements.

APPLICATION

Lead-free solder is extensively utilized in various electronic products, including communication equipment, instrumentation equipment, audio and video multimedia equipment, automotive industrial equipment, household electrical and electronic equipment. It is employed in a range of welding processes such as wave soldering, manual welding, precision welding, and special welding techniques. Additionally, it is used in automated mechanical welding processes like spraying and electroplating.

TYPICAL PROPERTIES

Items	Technical Parameters	Standards
Part Number	SAC0307-1101	/
Metal Alloy	Sn99.0 Ag0.3 Cu0.7	/
Appearance	Silvery White, Trapezoidal cross-section of strip casting alloys	Visual Inspection
Melting Point (°C)	217-227	Alloy part
Density (g/cm ³)	7.3	Alloy part
RoHS	PASS	RoHS Standard
Shelf Life	2 years	From MGF
Packaging	20kg/box & 1kg/Roll	/

ALLOY COMPOSITION

No.	Items	CAS. No	Content(%)
Key Metal Alloy			
1	Tin (Sn)	7440-31-5	Surplus Quantity
2	Silver (Ag)	7440-22-4	0.3±0.1
3	Copper(Cu)	7440-50-8	0.7±0.1
Impurity Limit			
4	Lead (Pb)	7439-92-1	≤0.10
5	Iron (Fe)	7439-89-6	≤0.02
6	Bismuth(Bi)	7440-69-9	≤0.10
7	Stibium(Sb)	7440-36-0	≤0.10
8	Indium(In)	7440-74-6	≤0.10
9	Zincum(Zn)	7440-66-6	≤0.001
10	Aurum(Au)	7440-57-5	≤0.05
11	Nickel (Ni)	7440-02-0	≤0.01
12	Aluminum(Al)	7429-90-5	≤0.001
13	Cadmium(Cd)	7440-43-9	≤0.002
14	Arsenic(As)	7440-38-2	≤0.03

DIRECTION OF USES

- After using for time, the composition of alloys will be changed, and that will lead to decline mechanical and welding performance, so the composition of solder alloys should be adjusted regularly by using pure tin. (Advice: every 10-15 days)
- Set soldering temperature according to the actual need. Soldering temperature is about 260-280 °C (Furnace inside practical testing temperature).

The data contained in this bulletin is provided only as a guide for evaluation/consideration. These material characteristics are typical properties that are based on a limited number of samples tested in the laboratory. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any product or method. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide.