

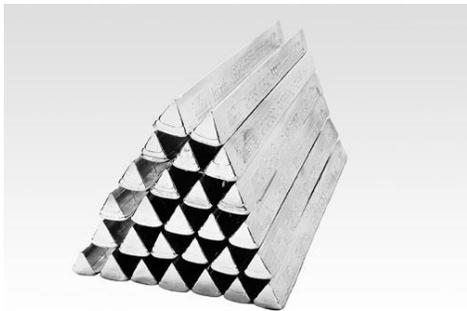
SAC0307 Lead Free Electrolytic Wave Solder Product Bulletin

Purity Improves Process

Metallic Resources' SAC0307 lead free solder alloy is manufactured from electrolytically processed tin and other elements to create solder so pure it far exceeds the most common specifications. It has been independently tested to meet all restrictions on hazardous substances. **It is RoHS compliant.** The specific alloy is Sn99/Ag0.3/Cu0.7. Standard packaging is 25-pound boxes containing cast bars. Also available are nuggets, ingots, or feeder bars.

Versatile and Reliable

Metallic Resources' high purity SAC0307 electrolytic alloy has been specially formulated and designed for use in all wave soldering, and tin and dip soldering applications. It is ideally suited for the assembly of printed circuit boards utilizing existing or new equipment found in the electronics market.



Higher Yield, Less Waste

Manufactured using an electrolytic process, Metallic Resources' SAC0307 lead free solder is lower in viscosity, which improves the fluidity. Greater fluidity improves the solder's wetting capability for better through hole fill, and reduces necessary re-work including bridging, icicling, cobwebbing and flagging.

High purity electrolytic solder is environmentally friendly, and generates less dross compared to other "virgin grade" lead free alloys. Less dross results in a greater number of joints per pound of solder consumed and greater cost effectiveness. Energy savings, extended pot life, reduced thermal stress, and reduced potential of contamination are all benefits derived from the electrolytic manufacturing process.

The electrolytic manufacturing process assures batch-to-batch consistency for predictable performance in the solder pot. The process removes most metallic and non-metallic impurities often found in "virgin metals" to provide a purer solder alloy. This purity results in a smaller crystalline structure which exhibits a shinier, more brilliant solder appearance when compared to other SAC0307 alloys.



METALLIC RESOURCES, INC.

Manufacturers of Superior Quality Electrolytic Solders

2368 East Enterprise Parkway • Twinsburg, Ohio 44087 • Phone: 330.425.3155

Exceeds Industry Standards

Lead Free SAC0307 bar solder conforms to the requirements of IPC Specification J-STD-006. It meets or exceeds ASTM-32, and is approved for military usage. It complies with Directive 2011/65/EU and Directive 2015/863/EU Restriction of Hazardous Substances (RoHS 2 and 3).

Certificates of Conformance and Analysis are automatically provided with each shipment.

Physical Properties

Melting Point	227°C
Density	7.4 g/cm ³
Operating Temperature	260-265°C
Tensile Strength	52 M Pa
Tensile Elongation	27%
Thermal Conductivity	64 J/m ² •K
Electrical Resistivity	0.15 Ohm-m
Thermal Shock -10 to +100°C	> 1000 cycles

Technical Specifications

	SAC0307 MRI Specification	J-STD-006 Alloy Specification
Sn	99.0000 ± 0.5	99.0000 ± 0.5
As	.0035 (max)	.0300 (max)
Sb	.0250 (max)	.2000 (max)
Au	.0020 (max)	.0500 (max)
Fe	.0050 (max)	.0200 (max)
Ni	.0060 (max)	.0100 (max)
Bi	.0100 (max)	.1000 (max)
Al	.0010 (max)	.0050 (max)
Cu	.7000 ± 0.1	.7000 ± 0.1
Ag	.3000 ± 0.1	.3000 ± 0.1
Zn	.0010 (max)	.0030 (max)
Cd	.0010 (max)	.0020 (max)
In	.0100 (max)	.1000 (max)
Pb	.0500 (max)	.0700 (max)



SolderSAC0307 0620

DISCLAIMER. This Product Bulletin is provided for general informational purposes only. While the information contained in this Product Bulletin (and any recommendations made by Metallic Resources, Inc. ("MRI") and its authorized representatives relating to the subject matter of this Product Bulletin) is based upon test data, experiments, and experience and is believed to be reliable, no guarantee of accuracy is made. Statements made herein will vary according to the nature of the surfaces to which the product is applied, application technique, and service condition. All products are sold "as is" and upon the condition that the buyer will make their own tests and assume the responsibility for determining the suitability and fitness of the product(s) for their particular purpose. This Product Bulletin is not intended, and shall not be construed, to warrant or guarantee the performance of the described products. MRI shall not be liable for any loss or injury arising out of the use of the information contained herein or the use, misuse or inability to use any products designated herein. In any event, MRI assumes no liability beyond the purchase price of the products involved. As a condition of sale, MRI will (at its option and as buyer's sole and exclusive remedy) refund the purchase price or replace materials proven to be defective and reported in a timely fashion, but no later than six (6) months after shipment.