Alloys



AIM offers a broad range of alloys for SMT, wave soldering, hand soldering, and various applications. Commonly used alloys for the electronics industry are shown below. Other alloys and solder forms are available upon request.

			SOLDER FORM AVAILABILITY*			
ALLOY	MELTING POINT °C	COMMENT	SOLDER PASTE	BAR SOLDER	CORED WIRE	SOLID WIRE
LOW TEMPERATURE						
Sn42/Bi58	- 138	For low temperature soldering applications. Alloys containing high amount of bismuth have unique properties that may require special considerations.	•	•		•
Sn42/Bi57/Ag1						
Sn62/Pb36/Ag2	179	Not RoHS/REACH compliant.	•	•	•	•
Sn63/Pb37	183					
HIGH RELIABILITY		-				
REL22 [™] Sn/Ag/Cu/Bi/Sb/X	210-212	High reliability, high strength lead-free solder alloy. Exceptionally durable for extreme service environments.	•	•	•	•
CASTIN® Sn/Ag2.5/Cu0.8/Sb0.5	217-219	Improved drop-shock performance versus SAC305.	•	•	•	•
TIN-SILVER/TIN-SILVE	R-COPPER (S	AC)				
SAC305 Sn/Ag3/Cu0.5	217-220	Industry standard for SMT and through hole soldering. High purity and high performance alloy.				
SAC387 Sn/Ag3.8/Cu0.7			•	•	•	•
SAC405 Sn/Ag4/Cu0.5						
Sn96.5/Ag3.5	221	Eutectic Sn-Ag solder alloy. Used for high temperature and high- reliability interconnect applications.	٠	•	•	•
LOW/NO SILVER LEAD	-FREE	·				
REL61™ Sn/Ag/Cu/Bi	208-215	Enhanced reliability, high strength/low silver, lead-free solder alloy. Exhibits good wetting. Mitigates tin whisker formation.	•	•	•	•
REL99 Sn/Cu/Ni/Ge	227	No silver, cost effective alternative for wave and hand soldering application.	•	•	•	•
SAC-B 0307 Sn/Ag0.3/Cu0.7	- 217-227	Cost effective alternative to SAC alloys. Primarily used in wave, selective and hand soldering due to higher melting temperatures. High purity and high performance alloy.	•	•	•	•
SAC-B 0107 Sn/Ag0.1/Cu0.7						
SN100C® Sn/Cu0.7/Ni0.05+Ge	- 227	Near eutectic, low/no silver, cost effective alternative for wave soldering and hand soldering applications.	٠	•	•	•
Sn99.3/Cu0.7						
Sn97/Cu3	227-300	Lead-free alloy used for high temperature soldering applications.	٠	•	•	•

*Solder Form Availability Subject to Change Melting points for information only should not be used as design criteria