



Tin/Silver/Copper LEAD FREE SOLDER BAR

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Physical Properties

Solder Composition

Qualitek Sn/Ag/Cu (Tin/Silver/Cu) Alloys are designed as a lead-free alternative for Sn/Pb alloys for electronics assembly operations. The Qualitek Sn/Ag/Cu alloys conform and exceed the impurity requirements of J-Std-006 and all other relevant international standards.

Typical Analysis														
	Sn	Ag	Cu	Pb	Sb	Bi	In	As	Fe	Ni	Cd	Al	Zn	Au
LF955-38	Bal	3.6-4.0	0.5-0.9	0.050 Max	0.050 Max	0.050 Max	0.050 Max	0.010 Max	0.010 Max	0.005 Max	0.001 Max	0.001 Max	0.001 Max	0.002 Max
LF965-30	Bal	2.8-3.2	0.3-0.7	0.050 Max	0.050 Max	0.050 Max	0.050 Max	0.010 Max	0.010 Max	0.005 Max	0.001 Max	0.001 Max	0.001 Max	0.002 Max
LF217	Bal	3.8-4.2	0.3-0.7	0.050 Max	0.050 Max	0.050 Max	0.050 Max	0.010 Max	0.010 Max	0.005 Max	0.001 Max	0.001 Max	0.001 Max	0.002 Max

	Sn/Ag/Cu	Sn63/Pb37
Melting Point, °C	217-221	183 E
Hardness, Brinell	15HB	14HB
Coefficient of Thermal Expansion	Pure Sn= 23.5	24.7
Tensile Strength, psi	4312	4442
Density, g/cc	7.39	8.42
Electrical Resistivity , (μohm-cm)	13.0	14.5
Electrical Conductivity, %IACS	16.6	11.9

	Sn/Ag/Cu	Sn63/Pb37
Yield Strength, psi	3724	3950
Total Elongation,%	27	48
Joint Shear Strength, at 0.1mm/min 20 C	27	23
Joint Shear Strength, at 0.1mm/min 100 C	17	14
Creep Strength, N/mm ² at 0.1mm/min 20 C	13.0	3.3
Creep Strength, N/mm ² at 0.1mm/min 100 C	5	1
Thermal Conductivity, W/m.K	58.7	50.9

Handling & Storage

Solder bar storage should be in a 65-80°F environment away from direct heat. When directly handling solder bar it is recommend to use appropriate gloves. Solder bar has an indefinite shelf life.

Packaging

SnAgCu solder bars are available in

Box of 20-2.0 lb bar

Box of 5-11 lb bars (5kg) Equalizer