

# 99SC Lead Free Solder



## Features:

- Low-cost tin / silver / copper solder
- Reduced dressing
- Better reliability than Sn / Pb
- Less dense, more joints per kilo (compared to tin / lead)

Formulated as an economic lead free alternative to traditional tin/lead solders for use in modern assembly, to give a balance of cost against performance. This alloy may not be suited to all mass production environments

## Compliance Table

Typical Analysis		Suggested Levels
Tin	Balance	98 - 99%
Silver	0.3%	0.2 - 4%
Copper	0.7%	0.6 - 1%
Arsenic	<0.001%	0.03% Max.
Gold	<0.001%	0.05% Max.
Bismuth	0.01%	0.04% Max.
Cadmium	<0.001%	0.003% Max.
Iron	<0.001%	0.01% Max.
Nickel	<0.001%	0.003% Max.
Zinc	<0.001%	0.003% Max.
Lead	<0.001%	0.1% Max.
Antimony	0.03%	0.1% Max.

## Recommended Operating Conditions

solder is suitable for use in dynamic and turbulent solder wave systems.

The optimum temperature range for operation of the solder bath is 265°C ±10°C

To ensure the continued optimum performance of Lead free solder in your manufacturing process it is important that periodic analysis of the solder bath contents is undertaken to verify that the alloy composition is maintained within strict limits. Any build-up of undesirable impurity elements or an increase in the copper content may lead to poor flow characteristics and non-ideal solder joint structure, with a consequent rise in defect rates. Your distributor will be pleased to discuss with you details of our analysis programme.

## Technical Specifications

Property	Value
Solidus	217°C
Liquidus	228°C
Density	7.33 g / cc
Hardness (Hv)	14.1

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## Manufacturing Control

All lead free bar solders are made with fully traceable batches of virgin metals within a Quality Management System that has been approved to BS EN ISO9001 2000 and Environmental Management System approved to BS EN140001  
Samples are retained from every batch of solder for a minimum three years period

## Health and Safety

**Warning :** The following information is for guidance only and users must refer to the material safety data sheets relevant to lead free solder products before use

**Protection and Hygiene :** Eating, drinking and smoking should not be permitted in the working area  
Hands should be washed with soap and warm water after handling solder, especially before eating

## Part Number Table

Description	Part Number
Solder Pellet, Lead Free, 250 G, TUB	GMC037

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