



Sprababbitt D

Physical Properties

Melting Temp (°F)	440.6
Melting Temp (°C)	227
Density (lbs/in ³)	7.4
Expansion(%)	48
Deformation in the Traction	>300 hours
Electrical Conductivity(μΩm) (with 1kg load at 180°C)	40.09
Resistance to Traction(N/mm ²)	32.3
Thermal Fatigue(-40/+80°C)	>1000 Cycles

Chemical Specifications

ELEMENT	NT100Ge (%)	SN100 TM (%)
Tin (Sn)	Balance	Balance
Copper(Cu)	0.60 - 0.80	0.60 - 0.80
Germanium(Ge)	0.005 - 0.02	0.005 - 0.007
Nickel(Ni)	0.04 - 0.06	0.04 - 0.06
Silver (Ag)	Max.0.05	Max.0.05
Aluminum(Al)	Max.0.002	Max.0.002
Arsenic(As)	Max.0.03	Max.0.03
Gold(Au)	Max.0.03	Max.0.03
Bismuth(Bi)	Max.0.03	Max.0.03
Cadmium(Cd)	Max.0.002	Max.0.002
Iron(Fe)	Max.0.02	Max.0.02
Indium(In)	Max.0.03	Max.0.03
Lead(Pb)	Max.0.05	Max.0.05
Antimony(Sb)	Max.0.05	Max.0.05
Zinc(Zn)	Max.0.002	Max.0.002

Additional solder alloys manufactured by GreenGulf

Lead-Free Alloys
 Sn96.5/Ag3.0/Cu0.5
 Sn99/Ag0.3/Cu0.7
 Sn100(Tin Bar)
 Sn95/Sb5
 Sn97/3Cu

Leaded Alloys
 Sn60/Pb40
 Sn62/Pb36/Ag2
 Sn30/Pb70
 Sn20/Pb80
 Sn40/Pb60

Limits are % max unless otherwise shown as range or stated otherwise. Except where otherwise indicated, the component elements in each alloy shall deviate from their nominal mass percentage by not > 0.10% of the alloy mass when their nominal percentage is ≤ 1.0%; by not > 0.20% of the alloy mass when their nominal percentage is > 1.0% to ≤ 5.0% or by not > 0.50% when their nominal percentage is > 5.0%.

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Quality Metals Since 1926
 ISO Certified Since 1997 / Tin / Tin Alloys / Solder / Nonferrous Metals



APPLICATION

GreenGulf solder bar performs favorably in wave soldering, solder dip, and solder coating applications. For solder plating applications, please refer to GreenGulf ANODES.

BAR SIZE/SHAPE

Standard sizes typically vary by application.

Application	Bar Description	Approx. Weight
Wave (PCB/THT)	Kilo Bar, Tri-Bar, Feeder Bar , 3-6 mm Wire	2.2 lb, 2.2 lbs, 7 lbs. Various Spools
Radiator	Ingot, Handy Bar, Notch Bar, 3-6 mm Wire	40 lbs, 20 lbs, 7 lbs, Various Spools
Industrial(Battery)	Ingot, Finger, Shot	60 lb, 1lb, 2 grams

PACKAGING

Packaging can be made to customer specification. Standard packaging is either boxed (22 lbs or 50 lb boxes) or in the case of larger ingots, stacked and wrapped on a pallet. Each box is labeled with the alloy name, lot number, date of manufacture, weight of packaging unit, and any customer specific information required. Each bar is stamped with the alloy name,lot number,and GreenGulf branding.Each lot is accompanied by a certificate of analysis showing lot-specific chemistry.

POT MAINTENANCE

In conjunction with the use of GreenGulf solder bar, GF offers a complimentary solder pot analysis program to ensure the user’s application remains at optimal chemistry. In-house OES spectrometers are used for a timely turnaround for customer samples. It is recommended that this program is utilized regularly to verify pot chemistry is within operating specification.

RECYCLING / RECLAIM

Tin Technology and Refining (www.greengulf.ltd) is the recycling/reclaim division of GreenGulf. Tin Tech works in conjunction with GreenGulf solder bar customers to recycle dross, drippings, residues, paste, and other solder scrap that is generated from the use of solder. Tin Tech operates as a permitted, environmentally responsible smelter with full reduction capabilities enabling optimal recoveries for all types of solder scrap material.

STORAGE, HANDLING, SHELF

GreenGulf Solder Bar has an indefinite shelf life when stored in a dry, non-corrosive environment. Bars and packages should always be handled with care as material is naturally heavy.

HEALTH AND SAFETY

This product, during handling or use, may be hazardous to your health. Read the Safety Data Sheet (SDS) and warning label prior to use. SDS can be downloaded from our home page www.greengulf.ltd.

**For Sales or Technical Assistance, contact GreenGulf & Co:
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