SOLDER CONNECTION
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Technical Bulletin

TSC PURALLOY Sn95 Sb5 SOLDER ALLOY

DESCRIPTION

TSC PURALLOY Sn95 Sb5 lead free solder alloy offers the user high reliability at elevated operating temperatures when compared to normal solders. It is an ideal choice for heating, plumbing and refrigeration applications offering excellent shear strength and thermal fatigue resistance on copper and brass interconnects. TSC PURALLOY Sn95 Sb5 meets RoHS and Reach compliance requirements.

TSC PURALLOY Sn95 Sb5solder alloy is available in solder feed wire, in a number of common wire diameters and reel sizes to meet all needs and industrial applications.

Product Features & Benefits

- Liquidus 230-240°C
- BS EN29453 alloy number 18 supersedes BS219 Alloy 95A
- Common Wire diameters 0.7mm, 1.0mm, 1.5mm, 2.0mm and 2.5 mm (additional diameters available on request).
- Supplied on 0.5kg,1 kg and 4 kg reels. (other reel sizes on request)
- Complies with IPC J-STD-006

MELTING TEMPERATURE RANGE

Typical Melting Temperature	
Solidus: 235°C	Liquidus: 240°C

HANDLING & STORAGE

Indefinite shelf life applies to solid solder. For other product categories, refer to those specific TDSs. Consult Sn95Sb5 MSDS for additional handling procedures and precautions.

Parameter	Time	Temperature
Shelf Life	Indefinite	Room Temperature

FLUX COMPATIBILITY

Sn95Sb5 bar solder is compatible with all major brands of no-clean and water soluble electronic grade fluxes.

TECHNICAL DATA

	Specifications
Melting Point	235-240°C
Density	7.25 g/Cm3
Electrical Resistivity	0.145
Thermal Conductivity	28 Wm-k
Tensile Strength Break	415 kgf /cm2
Tensile Elongation at break	38%
Brinell Hardness	13

HEALTH & SAFETY

Use with adequate ventilation and proper personal protective equipment. Refer to the accompanying Safety Data Sheet for any specific emergency information. Do not dispose of any hazardous materials in non-approved containers.

FURTHER INFORMATION

- Electrical resistivity and thermal conductivity are evaluated usually at 20°C and 85°C respectively.
- Electrical resistivity is inverse to electrical conductivity.
- Electrical conductivity is often expressed in % IACS which stands for International Annealed Copper Standard. 100% IACS is electrical conductivity of annealed copper which equals to 58.0 × 106 S· m-1.
- Tensile strength in kgf/cm² may be converted to psi (pounds per square inch) by multiplying with 14.22.