



# SOLDER CONNECTION

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## Technical Bulletin

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### TSC PURALLOY® GRADE 5S SOLDER ALLOY

#### DESCRIPTION

TSC Puralloy® Grade 5S (Sn5/Ag1.5/Pb93.5) is a leaded solder alloy incorporating lead, silver and tin, with a melting range of between 296-301°C. Grade 5S is a high temperature solder alloy, used frequently within the electrical soldering applications including the motor industry, due to its elevated operating range.

Grade 5S is also useful in applications that require step soldering, allowing the engineer to solder a second layer in a lower melt point alloy without affecting the initial solder. This alloy exhibits excellent physical properties, combined with good wetting and flow characteristics.

TSC Puralloy® Grade 5S solder alloy is available in a variety of formats 1 kg Bars, 3kg Ingots & Feed Wire. Chunks & Pellets are also available to assist in new pot fills on request.

#### Product Features & Benefits

- Leaded Solder Alloy
- High Melt Point Alloy
- Very good wetting characteristics and capillary action.
- Ideal for both Electrical applications.
- Available in a range of formats including Bar, Tinman Sticks, Blowpipe and Feed Wire

#### TYPICAL COMPOSITION

Typical Alloy Composition		
Sn: 5	Pb: 93.5	Ag: 1.5

#### MELTING TEMPERATURE RANGE

Typical Melting Temperature
296 - 301°C

#### TECHNICAL SPECIFICATIONS

	Specifications
Density (g/cm <sup>3</sup> )	11.10
Tensile Strength (MPa)	30
Tensile Strength (ksi)	6.75
Tensile Elongation at Break (%)	20

#### HANDLING & STORAGE

Indefinite shelf life applies to solid solder. For other product categories, refer to those specific TDSs. Consult Pb95 Sn5 MSDS for additional handling procedures and precautions.

#### 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.

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