

Technical Data Sheet for 62sn/36pb/2ag Solder Alloy

Product Name: 62Sn36Pb/2Ag Solder Alloy

Composition: 62% Tin (Sn), 36% Lead (Pb), 2% Silver (Ag)

Melting Point: Approximately 183-190°C (361.4-374°F)

Density: 8.5 g/cm³

Tensile Strength: 35-45 MPa

Electrical Conductivity: 9.3×10^6 S/m

Thermal Conductivity: 48 W/m·K

Coefficient of Thermal Expansion: 23.5×10^{-6} /°C (25-150°C)

Flux Compatibility: Good with most common flux types

RoHS Compliance: Not RoHS compliant due to the presence of lead (Pb)

Product Description

62Sn36Pb/2Ag is a eutectic solder alloy composed of 62% tin, 36% lead, and 2% silver. It is commonly used in soldering applications where improved mechanical strength and enhanced thermal conductivity are required. This alloy offers a relatively low melting point and exhibits good wetting properties, making it suitable for various electronic, plumbing, and assembly operations.

Physical Properties

Melting Point: The melting point of 62Sn36Pb/2Ag solder alloy ranges from approximately 183 to 190°C (361.4-374°F), providing a relatively low temperature for soldering operations.

Mechanical Properties

Tensile Strength: The typical tensile strength of 62Sn36Pb/2Ag solder alloy ranges from 35 to 45 MPa, indicating its ability to form strong and durable solder joints.

Electrical Conductivity: 62Sn36Pb/2Ag exhibits a high electrical conductivity of 9.3×10^6 S/m, making it suitable for applications where good electrical connectivity is required.

Thermal Conductivity: The thermal conductivity of this solder alloy is approximately 48 W/m·K, allowing efficient heat transfer during soldering processes.

Coefficient of Thermal Expansion: 62Sn36Pb/2Ag has a coefficient of thermal expansion of 23.5×10^{-6} /°C (25-150°C), ensuring compatibility with various materials and reducing the risk of thermal stress-induced damage.

Flux Compatibility

62Sn36Pb/2Ag solder alloy demonstrates good compatibility with most common flux types. It readily interacts with fluxes to remove oxide layers and facilitate the wetting and bonding of solder joints.

Safety and Compliance

It is important to note that 62Sn36Pb/2Ag solder alloy is not RoHS compliant due to the presence of lead (Pb). Adequate safety measures should be taken during handling and disposal to prevent lead contamination and comply with local environmental regulations.

Note:

This technical data sheet is provided for informational purposes only and should not replace specific product documentation or testing. Users should consult the manufacturer's guidelines and perform their own evaluations to ensure suitability for their intended applications.