

Technical Data Sheet for 10sn/88pb/2ag Solder Alloy

Product Name:	10Sn/88Pb/2Ag Solder Alloy
Composition:	10% Tin (Sn), 88% Lead (Pb), 2% Silver (Ag)
Melting Point:	Approximately 180-190°C (356-374°F)
Density:	9.4 g/cm ³
Tensile Strength:	15-25 MPa
Electrical Conductivity:	7.9×10^6 S/m
Thermal Conductivity:	38 W/m·K
Coefficient of Thermal Expansion:	29×10^{-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:

10Sn/88Pb/2Ag is a solder alloy composed of 10% tin, 88% lead, and 2% silver. It is commonly used in soldering applications where a lower melting point than traditional lead-free alloys is desired. This alloy provides good wetting properties and is suitable for a range of general soldering applications.

Physical Properties:

Melting Point: The melting point of 10Sn/88Pb/2Ag solder alloy ranges from approximately 180 to 190°C (356-374°F), providing a relatively low temperature for soldering operations.

Mechanical Properties:

Tensile Strength: The typical tensile strength of 10Sn/88Pb/2Ag solder alloy ranges from 15 to 25 MPa, indicating its ability to form solder joints with moderate mechanical strength.

Electrical Conductivity: 10Sn/88Pb/2Ag exhibits an electrical conductivity of 7.9×10^6 S/m, making it suitable for applications that require good electrical conductivity.

Thermal Conductivity: The thermal conductivity of this solder alloy is approximately 38 W/m·K, allowing for efficient heat transfer during soldering processes.

Coefficient of Thermal Expansion: 10Sn/88Pb/2Ag has a coefficient of thermal expansion of 29×10^{-6} /°C (25-150°C), ensuring compatibility with various materials and reducing the risk of thermal stress-induced damage.

Flux Compatibility:

10Sn/88Pb/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 10Sn/88Pb/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.