



PRODUCT DATA SHEET

BLF083

Type ISO 9454 / 2231; J-STD RELO

Overview

SOLDER CHEMISTRY BLF083 Solder Paste represents a significant advancement from its predecessor, BLF082, meeting and exceeding the evolving demands of the SMT industry. Developed in response to customer feedback, **BLF083** features enhanced printability and extended tackiness, capable of bridging delays up to several days between printing and assembly without compromising the quality or integrity of the solder paste.

Key Enhancements

- **Prolonged Tackiness:** Delivers extended workability and flexibility by maintaining its adhesive properties, allowing for extended intervals between print and assembly phases.
- **Trademark Minimal Residues:** Ensures minimal, tightly controlled residues that remain close to the solder joints, providing a clean PCB surface post-soldering.
- **Superior Joint Quality:** Produces void-free solder joints with minimal residues, making it particularly suitable for AOI systems.
- **Excellent Wetting Properties:** Achieves superior wetting on a variety of surfaces, including BGAs, QFNs, and LGAs, ensuring strong and reliable bonds.
- **Refrigeration-Free Storage:** Utilizes advanced chemistry that eliminates the need for refrigeration, a hallmark of Solder Chemistry solder pastes for over three decades.

Physical Data

Most Common Alloys	Melting Point	Type
Sn99.3/Cu0.7	224°C	Type 3: 25–45µm Type 4: 20–36µm Type 5: 10–25µm
Sn95.5/Ag3.8/Cu0.7	219°C	
Sn96.9/Ag2.6/Cu0.5	217–221°C	
Sn96.5/Ag3/Cu0.5	217–219°C	
Sn99.0/Ag0.3/Cu0.7	221°C	
Sn90.0/Ag3.5/In6.0/Bi0.5	202–210°C	

Viscosity*	Slump According to DIN32513			Solder Balling According to IPC	Wetting According to IPC
		Immediately	20min 80°C		
Type 3: 900 Pas Type 4: 950 Pas	Class 1: Class 2:	0.2 0.3	0.2 0.3	1	1

*Measured using the Brookfield RVT-DV-II viscometer with a TF 5R spindle at 5rpm, operating at 25°C and equipped with the Helipath system. 10% paste with 90% metal content.

Surface Resistance (SIR) and Electrolytic Corrosion Impact According to DIN 32513

Measured on Day 4: 2.8×10^{11}

Measured on Day 21: 5.1×10^{11}

Qualifications

SOLDER CHEMISTRY BLF083 Solder Paste is certified as an RMA paste and meets the stringent requirements of MIL-QQ-S571e. It has successfully passed extensive testing including corrosion, solder ball formation, wetting ability, and slump characteristics per DIN 32513 standards. Laboratory analysis has further validated that the residues left by this paste are corrosion-free and align with the RELO classification, ensuring they can safely remain on the PCB without adverse effects.

Solder Chemistry

Indium Advanced Materials GmbH • Fragnerstraße 4 • D-84034 Landshut • Germany
Tel. +49 871/4309500 • E-Mail: info@solderchemistry.com • www.solderchemistry.com



PRODUCT DATA SHEET

BLF083

Handling Instructions

Container Handling: Immediately reseal the container after use to prevent contamination.

Paste Management: To maintain optimal performance, do not mix used paste with fresh paste when storing it. It is permissible to mix in fresh paste with older paste in ongoing operations to rejuvenate the mix.

Mixing Restrictions: To ensure consistency and reliability in soldering results, do not mix different alloys or types of paste.

Squeegee Speed: Operate within a recommended squeegee speed of 15–100mm/s. Ensure the paste is continually rolling in front of the squeegee for optimal application.

Stencil Printing Recommendation: Use a paste formulation with 88% metal content for best results.

Stencil Cleaning: Use an alcohol-based cleaner for the stencil but prevent any contact with the solder paste to avoid contamination. Solder Chemistry Stencil Cleaner is recommended for this purpose.

Equipment Compatibility: The paste is suitable for use with all common reflow systems, ensuring wide applicability.

Storage Guidelines

Store unopened containers at room temperature (20°C/68°F) for up to 6 months. Once opened or in use at the squeegee of the printing device, the maximum working time may vary depending on environmental conditions. Refrigeration of the paste is not needed.

Order Example

Product: Solder Paste SC BLF083

Solder Paste	Grain Size	Alloy Composition	Flux Content	Jar Capacity
BLF083	T4	Sn96.5/Ag3.0/Cu0.5	12%	500g

Safety Regulations:

Refer to the corresponding safety data sheet for each flux.

Contact Information for Solder Chemistry:

Address: Fragnerstraße 4, D-84034 Landshut, Germany

Phone: +49/871/4309500

Email: info@solderchemistry.com

Website: www.solderchemistry.com

About Us

Solder Chemistry is a leading provider of soldering solutions, including solder pastes, wires, bars, fluxes, cleaners and adhesives for a wide variety of SMT applications. Founded in 1994, and headquartered in Germany, Solder Chemistry has set new standards in quality, innovation, and customer satisfaction, powered by its knowledgeable R&D and technical support staff. Utilizing a robust European supply chain, and its flexible, customer-oriented structure allows it to serve large, international companies as well as small businesses in a fast, reliable manner. In 2021, Solder Chemistry became an Indium Corporation company, operating as a brand under Indium Advanced Materials GmbH, while maintaining quality service and reliable products to its customers with its own formulations and service. For more information about Solder Chemistry, visit www.solderchemistry.com.