

## SPECIFICATION

**NAME** : Almit SRC Solder Paste  
LFM-48W TM-HP

Item No.	Type
	LFM-48W TM-HP (for small syringes) Flux Content 14.0% Solder Powder Size: 20-38 (μm)

### NIHON ALMIT CO., LTD

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**1. Product Name :** LFM-48W TM-HP

**2. Scope :** This spec. is specified for Almit solder paste LFM-48W TM-HP delivered by Nihon Almit Co., Ltd. to Messrs. \_\_\_\_\_ .

**3. Weight & Allowances: (g)**

Weight	20	40	80	100	200
Allowance	+5, -0				

**4. Chemical Composition : (wt%)**

Comp.	Main Constituents							
	Sn	Ag	Cu					
Standard	Bal	3.0±0.2	0.5±0.1					
Comp.	Impurities							
	Pb	Sb	Bi	Zn	Fe	Al	As	Cd
Standard	≤0.05	≤0.12	≤0.10	≤0.001	≤0.02	≤0.001	≤0.03	≤0.002

**5. Solder Powder Size & Distribution (J-STD-005 3.3.2)**  
**% of Sample by Weight – Nominal Size**

Type	None Larger Than	Less Than 1% Larger than	80% Minimum Between	10% Maximum Less Than
Type 4	40 Microns	38 Microns	38-20 Microns	20 Microns

**6. Characteristics :**

Characteristics	Standard	Test Methods
Metal Percent (wt%)	86.0±1.0	IPC-TM-650 2.2.20
Silver Chromate	Pass	IPC-TM-650 2.3.33
Copper Mirror Test	Pass	IPC-TM-650 2.3.32
SIR (85°C, 85%, 168 hr, measured out of chamber) (Ω)	≥1×10 <sup>8</sup>	IPC-TM-650 2.6.3.3
Corrosion Test	Pass	IPC-TM-650 2.6.15
Flux materials composition	RO	J-STD-004 1.2
Quantitative Halide	L1<0.5%	IPC-TM-650 2.3.35
Fluorides By Spot Test	Pass	IPC-TM-650 2.6.35.1

**7. Physical Properties:**

Metal Name	Solidus (°C)	Liquidus (°C)	Specific Gravity
LFM-48	217	220	7.4

**8. Lot Size :**

A single lot is consisted of, and may vary between 10 - 100kg, depends upon the production plan.

**9. Quality and Inspection :**

Inspection items are applied to each lot as follows:

Item No.	Inspection Item	Contents	Standard
1	Appearance	Colour	<b>Comparison with Limit Specimen</b>
2	Weight	Net Weight	-0, +5 (g)
3	Solder Powder Size	20-38 (W)	94≤ (wt%)
4	Metal Composition	Sn	Balance (wt%)
		Ag	3.0±0.2 (wt%)
		Cu	0.5±0.1 (wt%)
5	Characteristics	Flux Content	12.0±0.5 (wt%)
6		Solder Balling Test (*Almit Method)	Comparison with Limit specimen
7		Viscosity (Spiral type, 10rpm, 25°C) (IPC-650-2.4.34.3)	<b>80000±30000</b> (cps) <b>80±30</b> (Pa·s)
8		Solder ability on Cu Plate	Comparison with Limit Specimen
9		Dryness	Chalk powder should be easily removed from each test specimen.

\*Straight lines of solder paste are printed on to a JIS-2 type substrate then reflowed. The reflowed solder is examined with a stereo microscope at 30X magnification. No more than 2 solder balls larger than one fifth the size of the pattern gap is allowed per gap.

**10. Packing :**

Individual Packaging		Outer Packaging	
Unit	Packaging	Unit	Packaging
20g	Syringe 5 ccm	-	Cardboard box
40 g	Syringe 10 ccm		
80 g	Syringe 30 ccm		
100 g	Syringe 30 ccm		
200 g	Syringe 50 ccm		

**11. Identification :**

	Polyethylene Bottle	Cardboard Box
Name	Almit SRC Solder Paste LFM-48W TM-HP	Same as the left
Lot No.	(Ex.) 0301007-1	Ditto
Solder Powder Size	20-38 $\mu$ m	Ditto
Date of Mfg.	(Ex.) 03-10-7 (Indicate in the Christian era)	Ditto
Weight (Net)	(Ex.) 20 g	Ditto
Company Name	NIHON ALMIT CO., LTD.	Ditto

**12. Maker Address :**

Nihon Almit Co., Ltd.

Almit Bldg., 2-14-2 Yayoicho, Nakano-ku, Tokyo, Japan

**13. In case of changing this spec., it should be accepted by \_\_\_\_\_ .**

## HOW TO HANDLE LFM-48W TM-HP small syringes

### 1. Storage:

- Hold in a refrigerator. (0-10°C)
- It is recommended to use within 3 months from manufacturing date.
- The solder paste should be used as quickly as possible once lid has been opened.
- Unused solder paste in the jar should be refrigerated after re-applying the inner and outer lids.

### 2. How to Use:

- Prior to usage, solder paste should be removed from refrigeration for over 2 hours until it reaches room temperature.
- We recommend to stir the solder paste by mixing machine before use it. When stir by a spatula, open the jar after the solder paste is warmed up to room temperature and stir slowly to make the paste homogeneous. Caution must be taken not to mix in air.
- After printing the solder paste, mount components immediately and let it pass through reflow furnace.
- Slowly heat the reflow furnace at 1.0 to 2.0°C/second till reaching 120°C. Set peak temperature at 170 to 190°C during pre-heating and 230 to 250°C during reflow.
- This solder paste corresponds to No-Clean process, however confirmation may be required whether No-Clean process is applicable under user's expectancy.
- White residue (insulator) may appear after cleaning.
- Solder paste must be wiped off from metal mask, squeegee and spatula by applying solvent such as alcohol immediately after use.

### 3. Caution:

- The solder paste is not edible.
- The solder paste is for the industrial use only.
- Avoid contact with eyes and skin.
- Avoid inhalation of gases emitted by solder paste during use.
- Provide proper ventilation.

### 4. Notice:

- If contact with skin, wiped off with like alcohol and wash with soap and water, immediately.
- Use rubber gloves and protective glasses, if necessary.

### 5. Delivery:

- Usually 2-3 weeks from acceptance of order.