

**Trade Name: LFM-31W MHS32 12%**

**1. Company Address:** Almit GmbH Ph.: +49 6066 96884-0  
 Dekan-Groh-Straße 4 Fax: +49 6066 96884-18  
 (DE) 64720 Michelstadt - near Frankfurt

**2. Validity:** This specification is specified for:  
 Almit-Solder-Paste LFM-31W MHS32 12%  
 Delivered by Almit GmbH to: \_\_\_\_\_

**3. Diameter & Allowance:**

Weight	500g	500g	700g	1000g	0
Allowance	-0, +10g				

**4. Deliverable Reel Size:**

Metal Name	Solidus °C	Liquidus °C	Specific Gravity
LFM-31	190	199	7.3

**5. Physical Properties:**

Test	Characteristics	Test Methods
Metal Content	88.0 ± 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%, 168hr) (Ω)	≥ 1x10 <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	LO < 0.0%	IPC-TM-650 2.3.35
Fluorides By Spot Test	pass	IPC-TM-650 2.6.35.1

**6. Characterisitcs:**

Composition	Components							
	Sn	Ag	Cu	Pb	Sb	Bi	Au	In
Standard	Rest	≤0.10	≤0.05	<0.05	≤0.10	3.0	≤0.05	≤0.10
Composition	Components							
	Al	As	Cd	Fe	Ni	Zn		
Standard	≤0.001	≤0.03	≤0.002	≤0.02	≤0.01	8.0		

**7. Solder Powder Size & Distribuon :**

% of Sample by Weight – Nominal Size

Type	not larger than	less than 1% larger than	at least 80% between	at most 10% less than
Type 4 (W)	40 Microns	38 Microns	20 - 38 Microns	20 Microns

**8. Lot-Size:** A single lot contains 500kg which is the amount of one melting.

**9. Quality and Inspecon :**

Inspecon items are applied to each lot as follows :

Test No.	Inspection Item	Contents	Standard	
1	Appearance	Color	Comparison with Limit Specimen	
2	Weight	Net Weight	-0 ; +10	(g)
3	Solder Powder Size	20 - 38 $\mu\text{m}$ (W)	94 $\leq$	(wt%)
4	Metal Composition	Sn	Rest	(wt%)
		Bi	3.0 $\pm$ 0.2	(wt%)
		Zn	8.0 $\pm$ 0.5	(wt%)
				(wt%)
5	Characteristics	Flux Content	12.0 $\pm$ 0.5	(wt%)
6		Solder Balling Test	Comparison with Limit Specimen	
7		Viscosity (Spiral type, 10rpm, 25°C) (IPC-650-2.4.34.3)	180000 $\pm$ 30000	(cps)
			180 $\pm$ 30	(Pa•s)
8		Solderability 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 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 Package		Outer Package	
Unit	Packing	Unit	Packing
500g	Polyethylene bottle	10kg ; 20kg	Cardboard Box
500g	6 oz Catridge	10kg	
700g	Proflow Cassette	7kg ; 14kg	
1000g	12 oz Catridge	10kg	

**11. Identification:**

	Polyethylene bottle	Cardboard
Name	Almit-Solder-Paste LFM-31W MHS32 12%	same as the left
Lot Nr.	(Ex.) 120119-9	dto.
Solder Powder Size	20 - 38 $\mu\text{m}$	dto.
Date of Mfg.	(Ex.) 19.01.2012	dto.
Net Weight	(Ex.) 500g	dto.
Maker	Nihon Almit Co. Ltd.	dto.

**10. Maker Address:** Nihon Almit Co. Ltd.  
Almit Bldg., 2-14-2 Yayoicho, Nakano-ku, Tokyo, Japan

**11. In case of changing this specification it should be accepted by:**

Signature\_\_\_\_\_ Date\_\_\_\_\_

**12.** This product is manufactured, using all guaranteed materials according to the legal law regulations.

**13. Shelf Life:**

Up to

3 month from the manufactured date (lot number).