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Technical Datasheet

PARTNER WIRE LF 3135 NC

Cored Wire with Activated Rosin Flux

Applications

PARTNER WIRE LF3135NC is a new product developed for all lead-free solder alloys and applications. The new activator system is based on a successful two step activator. PARTNERWIRE LF3135NC is designed for applications where higher activation with less residues are required.

Product Description

PARTNER WIRE LF3135NC is a halide containing, rosin based no clean solder wire. The standard flux content is 2.2 % but 1.4% is also available. The activator of PARTNER WIRE LF3135NC is designed to meet the higher temperature requirements for lead free alloys. PARTNER WIRE LF3135NC shows good thermal stability due to a synthetic modified rosin. The post soldering residues, can be left on the board without cleaning. PARTNER WIRE LF3135NC is available in a variety of lead-free alloys e.g. SnCu0,7; SN100C, SN96C (SAV 387) and SN97C (SAC 305)and is supplied in a wide range of diameters from 0.35 – 3.5mm on 250g, 500g and 1kg reels.

Performance Characteristics:

- Classified per J-STD-004 as: RoM1
- Classified per EN 61190 -1-1:RoM1
- Metal classified per EN 61190-1-3.
- RoHS compliant*
- Compatible with RoHS compliant solder masks
- Excellent solderability
- Clear hard residues

Patent Information:

DKL Metals Ltd offer licensed products:
SN100C-SnCu0,7Ni (EU 0985486; JPN 3152945; US 6180055)
SN96C-SnAg3,8Cu0,7 (JPN 3027441; US 5527628)
* PARTNER WIRE LF3135NC contains no substances in concentrations which are prohibited by the European legislation 2002/95/EG ("RoHS").

Physical Properties:

- Acid Number: 200 ± 5% mg KOH/g of flux

Tested to J-STD-004, IPC-TM-650, Method 2.3.13

- Spread Test: 138 mm²± 15mm²

Tested to DIN EN ISO 9455-10:2000 (alloy SN100C)

- Copper Mirror Corrosion: M

Tested to J-STD-004, IPC-TM-650, Method 2.3.32

- Silver Chromate Test: positive

Tested to J-STD-004, IPC-TM-650, Method 2.3.33

- Chlorides and Bromides: ≤ 1%

Tested to J-STD-004, IPC-TM-650, Method 2.3.35

- Corrosion Test: Low

Tested to J-STD-004, IPC-TM-650, Method 2.6.15

- Fluoride by Spot Test: Pass

Tested to J-STD-004, IPC-TM-650, Method 2.3.35.1

- SIR, IPC:

Tested to J-STD-004, IPC-TM-650, Method 2.6.3.3
Test board 0,2mm spaces, 3mm lines, 5Volt bias voltage**
Data given for SN 97, 2,2%, ø1mm

	Reference	LF 3135
Day 1	2.8 x Exp. 9	2.9 x Exp. 7
Day 4	2.1 x Exp. 9	1.9 x Exp. 8
Day 7	2.0 x Exp. 9	2.1 x Exp. 8

- Electrochemical migration: Pass

Test board 0,2mm spaces, 3mm lines; 5Volt bias voltage **
Data given for SN100C, 1,4%, ø1mm
** Balver spec. LAB /W1

GLOBAL PARTNERS FOR LEAD-FREE SOLDERS

ASIA	NORTH AMERICA	UNITED KINGDOM	CONTINENTAL EUROPE
Nihon Superior	FCT Assembly	DKL Metals LTD	Josef Jost GmbH &Co. KG

Packaging:

Reel weight	0.25 kg	0.5/1.0 kg	0.5/1.0 kg
Reel marking	50/28	BZ	K80
Reel height	50 mm	80 mm	80 mm
Reel diameter	50 mm	76 mm	80 mm
Reel hole diameter	11 mm	30 mm	16 mm
Packing (reels/carton)	50	10	10

Standard Diameters/Flux Content:

Wire diameter	0.5, 0.8, 1.0, 1.5, 2.0, 2.5 mm
Flux content (M/M)	1.5, 2.5, 3.5 %

Other diameters and flux contents available on request.

Physical Properties Lead Free Alloys:

Partner wire LF3135NC is available in the following lead-free alloys:

Alloy Name	Composition	Melting Point (°C)	Tensile Strength* 10mm/min (Mpa)	Strain* (%)
SN100C	SnCu0,7Ni	227	32	48
SN96C	SnAg3,8Cu0,7	217	52	27
SN97C	SnAg3,0Cu0,5	208-219	50	32
SnAg4	Sn96Ag4	221	46	33
SNSb5	Sn95Sb5	230-240	46	38
SnCu3	Sn97Cu3	230-250	55	22
SnCu0,7	Sn99,3Cu0,7	227	32	48
BiSn42	Bi58Sn42	138	75	33

Further alloys are available on request.*Mechanical properties from bulk samples.

Max. Impurity level of SN100C

Sn	Cu	Ni	Pb	Sb	Bi	Ag	Zn	Fe	Al	As	Cd
Bal	**0.6 ±0.1**	*	**0.05 max**	**0.05 max**	**0.03 max**	**0.05 max**	**0.002 max**	**0.02 max**	**0.002 max**	**0.03 max**	**0.002 max**

Max. Impurity level of SN96C

Sn	Cu	Ni	Pb	Sb	Bi	Ag	Zn	Fe	Al	As	Cd
Bal	**0.7 ±0.1**	**0.005 max**	**0.05 max**	**0.05 max**	**0.01 max**	**3.8 ±0.2**	**0.001 max**	**0.008 max**	**0.001 max**	**0.01 max**	**0.001 max**

Storage:

Store in a clean dry environment at normal room temperatures.

Health & Safety:

Read the material safety data sheet and warning label before use.

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