



BALVER ZINN
Josef Jost GmbH & Co. KG

Technical Datasheet

BATIWIRES LF 3135 NC

Activated rosin flux

Fields of application

BATIWIRES LF3135NC is recommended for hand and automatic soldering applications in consumer (white goods industry, TV and audio equipment). A further field of application is the electro-mechanical component industry. The flux helps to remove the insulation on copper wires during the soldering process.

Product Description

BATIWIRES LF3135NC is a halide containing, rosin based no clean solder wire. The standard flux content is 2,2 % but 1,4% is available as well. The activator of **BATIWIRES LF3135NC** is designed to meet the higher decomposition temperatures for lead free alloys. During the decomposition an organic acid is formed to enhance the flux strength. The two step activator is based on an organic heterocyclic compound. The original low decomposition activator is used for more than 20 years. **BATIWIRES LF3135NC** was designed for applications where higher activation with less residues are recommended. **BATIWIRES LF3135NC** shows good thermal stability due to a synthetic modified rosin. The residues after soldering can be left on the board without cleaning. **BATIWIRES LF3135NC** is available in lead-free alloys like SnCu0,7; SN100C, SN96C and SN97C. **BATIWIRES LF3135NC** can be used in a wide range of diameter from 0,35 up to 3,5mm.

Performance Characteristics:

- Classified per J-STD-004 as: RoM1
- Classified per EN 61190 -1-1:RoM1
- Metal classified per EN 61190-1-3.
- RoHS conform*
- Strong solder joints
- Compatible with the new ROHS conform solder masks
- Excellent solderability
- Clear hard residues

Patent Situation:

Balver Zinn offers licensed products:
SN100C-SnCu0,7Ni (EU 0985486; JPN 3152945; US 6180055)
SN96C-SnAg3,8Cu0,7 (JPN 3027441; US 5527628)
* **BATIWIRES LF3135NC** contains no substances in concentrations or applications 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)

Reliability Properties:

- Copper Mirror Corrosion: M
Tested to J-STD-004, IPC-TM-650, Method 2.3.32
- Silver Chromate Test: positiv
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

	Blanc / reference	BATIWIRES 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
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NORTH AMERICA: FCT Assembly
UNITED KINGDOM: DKL Metals LTD
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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 holder	11 mm	30 mm	16 mm
Packing units (pieces/carton)	50 pieces	10 pieces	10 pieces

Delivery Sizes:

Parameter	Standard
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

Batiwire LF3135NC is available in 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

More alloys are available on request.

Impurity level of SN100C

Ag %	As %	Bi %	Cd %	Fe %	Pb %	Sb %
max. 0,05	max. 0,03	max. 0,03	max. 0,002	max. 0,02	max. 0,05	max. 0,05

Impurity level of SN96C

As %	Bi %	Cd %	Fe %	Pb %	Sb %
max. 0,03	max. 0,03	max. 0,002	max. 0,02	max. 0,05	max. 0,05

Alloy accuracy: silver and copper content $\pm 0,2\%$

Storage and shelf life:

Store clean and dry at room temperature.

Health & Safety:

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

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