

Electronic

Technical Data Sheet

BALVER ZINN SOLDER WIRE

Brilliant 211

BALVER ZINN[®]

Lead-free cored solder wire, no-clean, halide-free ROLO

General information

BALVER ZINN presents a new lead free cored solder wire: The Brilliant – series. **BALVER ZINN SOLDER Brilliant 211** is a halide-free No-Clean formulation and especially suitable for rework and touch-up applications. **BALVER ZINN BRILLIANT 211** shows low, bright and clear residues. The flux residues are non-corrosive and may remain on the board without cleaning.

BALVER ZINN BRILLIANT 211 shows very good wetting and flow ability.

BRILLIANT 211 has an excellent spread and in combination with **SN100CS** the lowest oxidation during soldering process.

BALVER ZINN BRILLIANT 211 is a No-Clean formulation; the standard flux content is 2.2 %.

BALVER ZINN BRILLIANT 211 is available in diameters from 0.3mm to 3.5mm. **BALVER ZINN BRILLIANT 211** is available in lead-free alloys **SN100C**, **SN96C** and **SN97C** and further more.

***BALVER ZINN BRILLIANT 211** does not contain hazardous substances beyond the limits prescribed by EU Directive 2002/95/EG ("RoHS")

Further information are available in the **BALVER ZINN information „5 golden rules for hand soldering.“** Technical information and Data Sheets can be found on our website (www.BALVERZINN.com). You can also obtain all information and documents directly from **BALVER ZINN**.

BALVER ZINN Production Programme

The **BALVER ZINN** production programme also includes solder bar, solder pastes and flux. In addition to the **SN100C** product family, **BALVER ZINN** offers other unpatented and patented solder alloys for wave soldering, reflow and rework.

Product Properties

- Flux classified according to J-STD-004 as: **ROLO**
- Solder wire classified according to EN 61190 -1-3: **ROLO**
- RoHS* compliant
- Bright and shiny solder joints with SN100C / SN100CS
- Ensures good wetting and flow during the soldering process
- Clear, dry, non-sticky residues
- Low spattering core flux

Physical and Chemical Properties of flux BRILLIANT 211

| | |
|---|---------------------|
| Acid value: J-STD-004; IPC-TM-650, Method 2.3.13; 06/04 A | 226.1 mg KOH/g ± 5% |
| Copper mirror test: J-STD-004; IPC-TM-650, Method 2.3.32; 06/04 D | L |
| Silver chromate test: J-STD-004; IPC-TM-650, Method 2.3.33; 06/04 D | passed |
| Solid content, flux: J-STD-004; IPC-TM-650, Method 2.3.34; 06/04 C | n. d. |
| Bromide und Chloride Test: J-STD-004; IPC-TM-650, Method 2.3.35; 06/04 C | n. d. |
| Fluoride after spot test: J-STD-004; IPC-TM-650, Method 2.3.35.1; 06/04 A | passed |
| Insulation resistance: J-STD-004; IPC-TM-650, Method 2.6.3.3; 06/04 B | n. d. |
| Corrosion test: J-STD-004; IPC-TM-650, Method 2.6.15; 06/04 C | passed |

Technical Data Sheet BALVER ZINN SOLDER WIRE Brilliant 211

Lead-free cored solder wire, no-clean, halide-free ROLO

Reels

| Weight | 0.25 / 0.4 kg | 0.5 / 1.0 kg | 0.4 / 0.8 kg |
|------------------|---------------|--------------|--------------|
| Marking | 63/37 | BZ | K80 |
| Height | 63 mm | 80 mm | 80 mm |
| Outside diameter | 63 mm | 76 mm | 80 mm |
| Inside diameter | 11 mm | 30 mm | 16 mm |
| Reels./carton) | 10 | 10 | 10 |

Physical Properties of BRILLIANT 211

BRILLIANT 211 are available with the following, lead-free alloys:

| Alloy | Composition | Melting temperature (°C) |
|------------------|--------------------|--------------------------|
| SN100C | SnCu0.7NiGe 50ppm | 227 |
| SN100CS | SnCu0.7NiGe 100ppm | 227 |
| SCAN-Ge - series | SnAgCuNiGe | 217 - 227 |
| SN96C | SnAg3.8Cu0.7 | 217 |
| SN97C | SnAg3.0Cu0.5 | 217-218 |
| i-SAC – series | SnAgCuCoGe | 217 - 227 |

Delivery Sizes lead-free Alloys

| Parameter | Standard |
|-------------------------|---|
| Wire diameter (mm) | 0.3 / 0.5 / 0.8 / 1.0 / 1.5 / 2.0 / 2.5 / 3.0 / 3.5 |
| Flux content (weight-%) | 2.2 |

*Other diameters, flux contents and features available on request

Storage Conditions / Durability

Dry at room temperature / minimum 2 years shelf life.

Safety Advice

Before use please refer to the appropriate Material Safety Data Sheet.

The information in this Data Sheet is based on data considered accurate. The measured values stated are based on own measurements, but do not represent assured properties or delivery specifications. Because of the vast number of different materials and applications – also with respect to possible protective rights of third parties – Balver Zinn Josef Jost GmbH & Co. KG **cannot** accept any liability.



OUR GLOBAL PARTNERS FOR LEAD-FREE SOLDERS

Nihon Superior Co., Ltd
Phone: +81(0) 6-63 80 11 21
Fax: +81(0) 6-63 80 12 62
E-mail: info@nihonsuperior.co.jp
Web page: www.nihonsuperior.co.jp

DKL Metals Ltd., Avontoun Works
Phone: +44 (0)1506-847710
Fax: +44 (0)1506-848199
E-mail: sales@dklmetals.co.uk
Web page: www.dklmetals.co.uk

Florida CirTech, Inc.
Phone: +1 (970) 346-8002
Fax: +1 (970) 346-8331
E-mail: b.gilbert@fctassembly.com
Web page: www.fctassembly.com