268 Flux-Cored Wire

Zero-Halogen, No-Clean Cored Wire for Robotic & Manual Soldering

Product Description

Kester 268 Flux-Cored Wire is a zero-halogen wire optimized for robotic soldering applications. With its unique chemistry system, 268 provides consistent workability performance for both robotic and manual soldering in the electronics industry, with performance equivalent to conventional halogen/ halide-based systems. 268 provides a clean release which prevents occurrences of bridges and protrusions, even in narrow-pitch automated drag soldering. The use of 268 results in a clear post-soldering residue without the need for cleaning. 268 is classified as Type ROL0 flux under J-STD-004B specifications. 268 is zero-halogen and halide-free with no intentional addition of bromine and chlorine, conforming to the strictest requirements of IEC 61249-2-21, JPCA-ES-01 and IPC-410B specifications. For a list of compatible products, visit Kester's website or contact Kester Technical Support.

Performance Characteristics:

- Low occurrence of solder ball spatter
- Conforms to halogen-free requirement of IEC 61249-2-21, JPCA-ES-01 and IPC-410B specifications with no intentionally added halogens and halides
- Low smoke and odor
- Excellent wetting speed and spread; superior to halogenated materials
- Clear residue, resulting in excellent joint aesthetics after soldering
- Excellent surface wettability and spreading suitable for robotic soldering and manual soldering
- Excellent manufacturing consistency and uniform quality, minimizes defects for all types of soldering
- Classified as ROL0 per J-STD-004B

RoHS Compliance

This product meets the requirements of the RoHS (Restriction of Hazardous Substances) Directive, 2002/95/EC Article 4 for the stated banned substances. (Applies only if this core flux is combined with a lead-free alloy.)

Reliability Properties

Copper Mirror Corrosion: Low

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

Corrosion Test: Low

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

Silver Chromate: Pass
Tested to J-STD-004B, IPC-TM-650, Method 2.3.33

Quantitative Halides: None Detected
Tested to J-STD-004, IPC-TM-650, Method 2.3.28.1

Quantitative Halogens: None Detected
Tested to IPC-TM-650, Method 2.3.35, JPCS- ES-01, prEN14582 and IEC 61189-2 Test 2C12 specifications

Surface Insulation Resistance (SIR) 40 °C/90% RH, IPC (Typical): Pass
Tested to J-STD-004B, IPC-TM-650, Method 2.6.3.7

Availability

268 is available in SAC 305 and K100LD lead-free alloys and Sn63Pb37 in 3.3% flux on a robotic spool. For low-cost, lead-free soldering applications, the K100LD alloy is ideal. Wire diameters typically range from 0.25 to 1.6 mm (0.010 to 0.062 in).

For other alloys and flux percentages, please contact Kester Customer Service. Please refer to https://www.kester.com for more information.

Process Considerations

Solder iron tip temperatures are most commonly between 371 to 400 °C (700 to 750 °F) for lead-free alloys and 315 to 343 °C (600 to 650 °F) for leaded alloys. Heat both the land area and component lead to be soldered with the iron tip prior to applying the solder wire to land area or component lead. To maximize tip life and reduce solder spattering, do not feed wire directly to iron tip.

Additional liquid flux should only be used as a last resort. Any flux applied to the solder location should be kept to the area of the connection being reworked. If needed, Kester NF372-TB may be used as a compatible liquid flux to aid in enhancing solderability of soldered joints. NF372-TB is also available in as a Flux-Pen® for optimum board cleanliness.

Cleaning

268 possesses excellent fluxing ability. The flux residues are non-corrosive, non-conductive, and do not require removal for most applications under normal conditions of use. IPA will not clean the residues off the surface of the circuit board after the soldering process. If removal is required, a saponifier or cleaning agent specifically designed to clean a no-clean flux is required to clean the residues. Please contact Kester Technical Support for further information.

Storage, Handling and Shelf Life

Storage must be in a dry, non-corrosive environment between 10 to 40 °C (50 to 104 °F). The surface may lose its shine and appear a dull shade of grey. This is a surface phenomenon and is not detrimental to product functionality. Flux-cored solder wire has a shelf life determined by the alloy used in the wire. For alloys containing more than 70% lead, the shelf life is 2 years from the date of manufacture. Other alloys have a shelf life of 3 years from the date of manufacture.

Health and Safety

This product, during handling or use, may be hazardous to your health or the environment. Read the Safety Data Sheet and warning label before using this product. Safety Data Sheets are available at https://www.kester.com/downloads/sds.

Contact Information

To confirm this document is the most recent version, please contact Assembly@MacDermidAlpha.com

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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