kester® Technical Data Sheet

296 Flux-Cored Wire

Zero-Halogen, No-Clean Cored Wire for Lead-bearing and Lead-free Alloys Suitable for manual and automated soldering

Product Description

Kester 296 No-Clean Flux-Cored Wire is halogen-free 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. With its unique chemistry system, 296 provides consistent workability performance for both manual and automated soldering in the electronics industry, as compared to the conventional halogen/halide-based systems. 296 provides a good break-off and prevents occurrences of bridges and protrusions, even in narrow-pitch automated drag soldering. The use of 296 results in a clear post-soldering residue without the need for cleaning. 296 is classified as Type ROL0 flux under J-STD-004B specifications.

Performance Characteristics:

- Conforms to halogen-free requirements of IEC 61249-2-21, JPCA-ES-01 and IPC-410B specifications with no intentionally added halogens and halides
- Low smoke and odor
- Clear residue, resulting in excellent joint aesthetics after soldering
- Excellent surface wettability and spreading suitable for automated soldering besides manual soldering
- Excellent manufacturing consistency and uniform quality, minimizes defect for all types of soldering
- Eliminates the need and expense of cleaning
- Classified as ROL0 per J-STD-004B

RoHS Compliance

Kester does not determine any applicable Restriction of Hazardous Substances (RoHS) exemptions for our lead containing products at the user level. (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; JPCA-ES-01; prEN14582 and IEC61189-2 Test 2C12 specifications

Electrochemical Migration Resistance: Pass
Tested to J-STD-004B, IPC-TM-650, Method 2.6.14.1

Surface Insulation Resistance (SIR), (typical): Pass,
All Readings >$1.0*10^8$ Ω
Tested to J-STD-004B, IPC-TM-650, Method 2.6.3.7

	Blank	296
Day 1 (96h)	$9.2*10^9$ Ω	$3.0*10^8$ Ω
Day 4 (500h)	$4.1*10^9$ Ω	$3.5*10^9$ Ω

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Availability

For most applications, Sn96.5Ag3.0Cu0.5 is recommended for lead-free soldering whilst Sn63Pb37 is recommended for leaded soldering. For low-cost, lead-free soldering applications, K100LD can be used. Wire diameters typically range from 0.25-1.27mm (0.010-0.050in). A Standard Wire Diameters chart is included in Kester's Product Catalog. The amount of flux in the wire dictates the ease of soldering for an application. For tin/lead applications, 2.2% flux by weight is recommended. For lead-free applications, 2.2% flux by weight or 3.3% flux by weight is recommended. Please contact Kester Technical Support for assistance on availability of other core sizes and wire diameters.

Process Considerations

Solder iron tip temperatures are most commonly between 260-370°C (500-700°F) for Sn63Pb37 and 371-400°C (662-752°F) for SnAgCu alloys. Heat both the land area and component lead to be soldered with the iron prior to adding 296 cored wire. Apply the solder wire to the land area or component lead. Do not apply the solder to the soldering iron tip in order to reduce spattering of the wire. If needed, Kester 952-D6 Flux Pen may be used as a compatible liquid flux to aid in reworking soldered joints.

Cleaning

296 flux residues are non-corrosive, non-conductive and do not require removal in most applications. If residue removal is required, call Kester Technical Support.

Storage and Shelf Life

Storage must be in a dry, non-corrosive environment. The surface may lose its shine and appear a dull shade of gray. This is a surface phenomena and is not detrimental to product functionality. Flux cored solder wire has a limited shelf life determined by the alloy used in the wire. For alloys containing more than 70% lead, the shelf life is two years from the date of manufacture. Other alloys have a shelf life of three 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 (SDS) and warning label before using this product.

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Данный компонент на территории Российской Федерации

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http://moschip.ru/get-element

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