

## 275/66

# No-Clean Cored Wire

For Lead-free alloys Sn96.5Ag3.0Cu0.5

### Product Description

Kester 275 No-Clean Flux for cored solder wire was developed to provide superior wetting performance for hand soldering in the electronics industry. The chemistry is based on some of the same principles that have been safely used for years in mildly activated rosin fluxes. The use of 275 No-Clean Flux results in an extremely clear post-soldering residue without cleaning. The unique chemistry in Kester 275 was also designed to reduce spattering common to most core fluxes. Kester 275 is Belcore GR-78 compliant.

#### Performance Characteristics:

- Colorless translucent residues
- Improves wetting performance
- Excellent solderability and fast wetting to a variety of surface finishes
- Eliminates the need and expense of cleaning
- Low smoke and odor
- Low spattering
- Classified as ROL0 per J-STD-004
- Compliant to Belcore GR-78
- 

### Reliability Properties

#### Copper Mirror Corrosion: Low

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

#### Corrosion Test: Low

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

#### Silver Chromate: Pass

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

#### Chloride and Bromides: None Detected

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

#### Fluorides by Spot Test: Pass

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

#### SIR, IPC (typical): Pass

Tested to J-STD-004, IPC-TM-650, Method 2.6.3.3

	<b>Blank</b>	<b>275</b>
Day 1	$1.6 \times 10^{10} \Omega$	$1.1 \times 10^{10} \Omega$
Day 4	$1.2 \times 10^{10} \Omega$	$9.2 \times 10^9 \Omega$
Day 7	$1.1 \times 10^{10} \Omega$	$8.6 \times 10^9 \Omega$

#### Spread Test (typical):

Tested to J-STD-004, IPC-TM-650, Method 2.4.46

	Area of Spread mm <sup>2</sup> (in <sup>2</sup> )
Flux Core Solder	Sn96.5Ag3.0Cu0.5
285 Mildly Activated Rosin	213 (0.33)
245 No-Clean	200 (0.31)
275 No-Clean	219 (0.34)

## Application Notes

### Availability:

Kester 275 is available in a wide variety of alloys, wire diameters and flux percentages. For most applications, Sn96.5Ag3.0Cu0.5 is used. Consult the alloy temperature chart in Kester's product catalog for a comprehensive alloy list. The standard wire diameter for most applications is 1.00mm (0.031in). Wire diameters range from 0.25 - 6.00mm (0.010 to 0.250in). A "Standard Wire Diameters" chart also is included in Kester's product catalog. The amount of flux in the wire dictates the ease of soldering for an application. For lead-free applications, core 58 or 66 (2.2 and 3.3% flux by weight) are recommended. Kester 275 is packaged on spools of different sizes to accommodate a variety of applications.

### Process Considerations:

Solder iron tip temperatures should range between 315-400°C (600-750°F) for lead-free alloys. Heat both the land area and component lead to be soldered with the iron prior to adding Kester 275 cored wire. Apply the solder wire to the land area or component lead. Do not apply the wire directly to the soldering iron tip. If needed, Kester 952-D6 no clean, rosin free flux may be used as a compatible liquid flux to aid in re-working soldered joints. Kester 952-D6 is also available in flux pens for optimum board cleanliness.

### Cleaning:

The 275 residues are non-conductive, non-corrosive and do not require removal in most applications. The flux residues are comparable to a conventional RMA except that the 275 residue is clear and colorless. If residue removal is required, call Kester Technical Support.

### Storage, Handling, and Shelf Life:

Storage must be in a dry, non-corrosive environment. The surface may lose its shine and appear a dull shade of grey. 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 lead-free alloys have a shelf life of three years from date of manufacture.

### Health & Safety:

This product, during handling or use, may be hazardous to health or the environment. Read the Material Safety Data Sheet and warning label before using this product.

---

**World Headquarters:** 515 E. Touhy Avenue, Des Plaines, Illinois, 60018 USA

**Phone:** (+1) 847-297-1600 • **Email:** customerservice@kester.com • **Website:** www.kester.com

#### Asia Pacific Headquarters

500 Chai Chee Lane  
Singapore 469024  
(+65) 6449-1133  
customerservice@kester.com.sg

#### European Headquarters

Ganghoferstrasse 45  
D-82216 Gernlinden  
Germany  
(+49) 8142-47850  
customerservice@kester-eu.com

#### Japanese Headquarters

20-11 Yokokawa 2-Chome  
Sumida-Ku  
Tokyo 130-0003 Japan  
(+81) 3-3624-5351  
jpsales@kester.com.sg

---

The data recommendations presented are based on tests, which we consider reliable. Because Kester has no control over the conditions of use, we disclaim any responsibility connected with the use of any of our products or the information presented. We advise that all chemical products be used only by or under the direction of technically qualified personnel who are aware of the potential hazards involved and the necessity for reasonable care in their handling. The technical information contained herein is consistent with the properties of this material but should not be used in the preparation of specifications as it is intended for reference only. For assistance in preparing specifications, please contact your local Kester office for details.