LIQUID FLUX EF160 BIO PV

No-Clean Bio Solar Flux

PRODUCT DESCRIPTION

EF160 Bio PV is a bio flux from Stannol's sustainable greenconnect product range. By using renewable raw materials, a better ecological balance is achieved while maintaining the same high quality. According to DIN EN 16785 2, a 95 percent biobased content is determined.

EF160 Bio PV is a zero-halogen, resin-free, low-solids flux developed specifically for the photovoltaic module industry. The flux shows excellent solderability in module assembly processes for soldering by IR and convection. It can be applied and soldered by hand onto the ribbon or fully automated in tabber/stringer soldering systems with spray fluxer.

The carefully formulated activator system leaves no residue on the cell after soldering – the cells are dry and cosmetically clean after exiting the soldering process. The EF160 Bio PV offers a wide thermal process window, therefore it is suitable for lead-free and lead-containing soldering processes. The new solar flux has high peel forces, which keep the solder joints stable in the long term.

PRODUCT PROPERTIES

The product offers the following advantages:

- **CO_2 savings**
- **No-Clean**
- **extremely low residue – minimal equipment contamination, low-maintenance processing**
- **low solids content**
- **excellent peel force resistivity**
- **excellent wettability**
- **suitable for immersion and spray application methods**

Classification:

- **ORL0 according to J-STD-004**
- **RoHS-compliant**

APPLICATION

Developed for the photovoltaic industry, EF160 Bio PV can be applied by spray or dip. The flux is suitable for both automated spray and stringer applications and can also be used for hand soldering.

PHYSICAL PROPERTIES AND DATA

PROPERTIES	EF160 BIO PV
Appearance:	clear, colourless liquid
Density:	0,806 – 0,810 g/cm³ Anton Paar DMA 35 at 20 °C
Solid Content:	1,4 – 1,8 %
Acid value:	10 – 14 mg KOH/g

Haberstr. 24 • 42551 Velbert • Tel: +49 (0)2051-3120-0 • Fax: +49 (0)2051-3120-111 • E-Mail: info@stannol.de • www.stannol.de

Halogen content:	Zero (no additive)
Copper Mirror Test:	per J-STD-004C, IPC-TM-650, Method 2.3.32: pass
SIR Test:	per J-STD-004B, IPC-TM-650: Method 2.6.33/2.6.3.7: pass
Corrosion Test:	per J-STD-004C, IPC-TM-650, Method 2.6.15: pass

CLEANING

EF160 Bio PV flux residues after soldering are not conductive and non-corrosive. They do not have to be removed in most cases.

SHELF LIFE

1 year from the date of manufacture (with correct handling and storage between 5 and 35 °C)

HEALTH AND SAFETY

Read the safety data sheet and observe safety measures before first use. The flux EF160 Bio PV is flammable. Store away from sources of ignition.

DISCLAIMER

Haberstr. 24 • 42551 Velbert • Tel: +49 (0)2051-3120-0 • Fax: +49 (0)2051-3120-111 • E-Mail: info@stannol.de • www.stannol.de