



Product Information

Electronic flux ISO-FLUX® “ELS 3320“

Resin-free no-clean flux for wave- and selective soldering

DIN EN 61190-1-1 / ORLO (DIN EN 29454-1 / 2.2.3.A)

Item No.: 258320..

All information about our products are the result of our long standing experience which we would like to pass on to our customers as application support. However, as we do not have any influence on the application of the works carried out with our products, please see the warranty claims in our conditions of sale because our liability is limited.

This product information does not constitute warranted properties.

Description

ISO-FLUX® "ELS 3320" is a resin-free, halide-free flux on alcohol basis for the automatic soldering of P.C.B.s with standard and SMD-mounting. The flux shows very good activating properties and has excellent spreading properties on **all** common solder surfaces.

ISO-FLUX® "ELS 3320" has especially been developed for the purpose of an inertisation of organic surfaces as well as against blob development during the automatic soldering process. Especially for photopolymer solder resist masks, for two component solder resist masks as well as untreated basis material this flux prevents through its special preparation as far as possible the corresponding development mechanism respectively an affinity at the interface.

ISO-FLUX® "ELS 3320" is very temperature stable and therefore very suitable for the lead-free soldering technique.

Properties

Solid content	:	2.7 %
Density (20° C)	:	0.813 g/cm ³
Acid value	:	24.5
Flashpoint	:	<12° C
Halide content	:	halide-free
Colour	:	water clear
Thinner	:	FELDER VF-1

Application

ISO-FLUX® "ELS 3320" is especially suitable for the highly qualified production of commercial electronic and achieves with SMD-mounting best results.

The application of the flux on the P.C.B. is practicable with all well-known fluxing procedures (e.g. foaming, spraying, microdrop etc.).

ISO-FLUX® "ELS 3320" is suitable for the soldering with single wave and double wave systems as well as with turbulent multiple-hole nozzle systems (Wörthmandüsen).

After the soldering the circuit boards are as far as possible free of residues. Therefore, the cleaning can be left out. The cooled down flux distinguishes itself by its well isolation properties, which are kept by the humidity demands.

A lacquer ability of the cooled down circuit with common isolation lacquers is generally given. The user should convince itself of the compatibility.

As quality security measures following tests were made:

Isolation resistance	Comb pattern according to IPC-B-24
Sample preparation	<p>Test A, apply 3 comb patterns with flux, after drying put it on the solder bath at 245 - 260°C for 4±1 seconds with comb pattern side down, cleaned.</p> <p>Test B, 3 comb patterns, same application, comb pattern side down, not cleaned</p> <p>Test C, like B, but put comb pattern side up on the solder bath.</p>
Result	SIR-Test passed uncleaned and cleaned
E-corrosion	The comb patterns of the isolation test will be stored after 4 days humidity test for further 21 days in climate 40°C / 93% rel. humidity at applied direct voltage (+5VDC).
Result	no e-corrosion

Flux Residues

After soldering the flux residues do not lead to corrosion of non-ferrous metals and therefore can remain on the solder joint. During the soldering process the major part of the flux is washed away from the PCB. For the removal of the flux residues ethanol, isopropanol or aqueous alkaline cleaner are suitable.

Advice

FELDER ISO-FLUX® “ELS 3320“ does not contain any substances which are subject to restrictions according to directive 2011/65/EU (“RoHS”).

Storage Advice

Recommended storage temperature is between +5° C and +20° C.

Minimum Durability

6 months from production date.

With open flux systems the acid value has to be measured by titration daily. This can be carried out without any great effort by the machine operator using our **FELDER Titration Set**.

Delivery Form

100, 250, 500 and 1000 ml bottles,
5 and 25 l canister