

Technical Product Information

ELFLUX 6000 and 6000KS

General Description

ELFLUX 6000 and 6000KS are organic fluxes designed for soldering of circuit board assemblies where a more active flux is required. ELFLUX 6000 is medium activated and shows a good wetting and a good capillary effect in plated through-holes. ELFLUX 6000KS is slightly less activated, both are recommended for OSP- and Ni/Au finishes. The residues after soldering must be removed immediately in standard water cleaning systems (batch cleaning systems or inline cleaners). After cleaning ELFLUX 6000 and 6000KS show high ionic cleanliness. The clean surface can be coated with conformal coating for high reliability applications.

ELFLUX 6000 and 6000KS do not develop offensive odours or excessive smoke during the soldering process. The fluxes will not foam in standard water cleaning systems and do not contain any toxic chemicals. ELFLUX 6000 fluxes are completely biodegradable and the disposal of the wash water is environmentally safe.

ELFLUX 6000 und 6000KS provide:

- A large process window
- High activity
- No odours during soldering
- High ionic cleanliness
- Good compatibility with the most solder masks
- No degradation of surface insulation resistance
- No risk of solder balls

Classification

Classification per DIN EN ISO 9454-1: 2123 and ORM1 per DIN EN 61190-1-1.

Technical Specification

	ELFLUX 6000	ELFLUX 6000KS	Thinner 200
Density [g/cm ³] (20 °C)	0.882 ± 0.005	0.856 ± 0.005	0.784 ± 0.005
Solids content [%] (per IPC-TM-650 2.3.34)	24	17	None
Halides [%]	1.5 ± 0.1	1.0 ± 1	None
Flash point [°C]	12	12	12
Ignition temperature [°C]	399	399	399
Surface insulation resistance*	2 x 10 ¹⁰ Ω		
Recommended thinner	Thinner 200		

*After cleaning: Test boards 12.5 mil lines, 12.5 mil spaces and 50 volt DC bias. Readings taken after 1 min of 100 volt DC with polarity reversed from bias voltage. Climate: 50 °C, 90 % humidity.

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Application

ELFLUX 6000 and 6000 KS can be applied by spray, dip or foam fluxing equipment. The flux is best applied by foam. To avoid excessive flux an air knife can be used after foam fluxing. The optimum preheat temperature for most circuit board assemblies is 80 – 110 °C as measured on the top side of the board.

Process Control

The specific gravity is an adequate method to control the flux during the process, to guarantee constant quality. The specific gravity should be checked in regular intervals.

Cleaning

It is not necessary to use saponifiers or detergents or any neutralizer. The residues can be cleaned with tap water and deionised water. The optimum water temperature is 50 – 65 °C but lower temperatures are also possible.

General Safety Precautions

ELFLUX 6000 and 6000KS should be used according to industrial standards of practice. For safety advice please refer to the material safety data sheet.

Storage

ELFLUX 6000 and 6000KS are flammable and should be stored away from sources of ignition.
Storage temperature: 5 – 20 °C

Shelf Life

Under adequate conditions ELFLUX 6000 and 6000KS can be stored in original unopened containers for a minimum of 12 months.

The information contained herein is based on technical data that we believe to be reliable and is intended for use by persons having technical skill, at their own risk. Users of our products should make their own tests to determine the suitability of each product for their particular process. TAMURA ELSOLD will assume no liability for results obtained or damages incurred through the application of the data presented.