

■ General Description

ELFLUX 2001 NC is a solvent-based no clean flux for use in wave soldering. ELFLUX 2001 NC has a reduced solid content suitable for lead-free soldering is classified as ORL0. ELFLUX 2001 NC is halide free and contains a small amount of rosin which makes residues much safer than with other resin free fluxes.

Thinner 201 is used as solvent to control the density of ELFLUX 2001 NC

ELFLUX 2001 NC provides for a improved wetting and leaves extremely few, non-tacky residues on the printed circuit board. The residues are non-conductive and non-corrosive. Electrical in-circuit testing is possible without any problem. Since the solder joints show only very few residues, cleaning is in general not required. ELFLUX 2001 NC contains a corrosion inhibitor so that no corrosion occurs on copper surfaces under the influence of humidity.

ELFLUX 2001 NC improves the soldering result due to the optimised flux chemistry. The risk of solder bridges and shorts is extremely reduced.

■ Areas of Use

ELFLUX 2001 NC has been developed especially for the processing of lead-free solders in wave soldering processes. It is equally suitable for all standard printed board surface finishes. The flux can be used for telecom and automotive electronic applications.

■ Classification

ELFLUX 2001 NC is classified as ORL0 per DIN EN 61190-1-1 and per IPC ANSI/J-STD-004.

■ Technical Specification

	ELFLUX 2001 NC	Thinner 201
Appearance	Clear, nearly transparent liquid	Clear, transparent liquid
Smell	Mild alcoholic	Mild alcoholic
Density [g/cm ³] (20 °C)	0.797 ± 0.003	0.787 ± 0.003
Solids content [%] (per IPC-TM-650 2.3.34)	2.6	None
VOC content [%]	> 95, Solvent-based	100, Solvent
Acid number [mg KOH/gFlux]	18 ± 2	< 1
Halides [%]	None	None
pH value	4	Neutral
Flash point [°C]	12	12
Ignition temperature [°C]	399	399
Recommended thinner	Thinner 201	

■ Application

ELFLUX 2001 NC can be applied by foaming, spraying or dipping. The flux will provide a uniform head of foam with small air bubbles. The optimum preheat temperature for the lead-free soldering of most circuit board assemblies is 110-140 °C as measured on the top side of the circuit board. The activator

package used for this flux can tolerate these process temperatures which are clearly higher than in conventional soldering processes without major impact on its performance.

■ **Process Control**

No special control is required in case of closed flux control systems. In case of open systems the monitoring and control of the flux during use is very important to assure a consistent and uniform flux distribution on the circuit boards. This can best be done by using chemical titration. Automatic density control equipment is not accurate due to water absorption.

■ **Cleaning**

Cleaning of the boards: ELFLUX 2001 NC is a no clean flux. Cleaning is in general not required. Should cleaning be desired/specified any commercially available cleaning agent for the removal of flux residues can be used.

■ **General Safety Precautions**

ELFLUX 2001 NC should be used according to industrial standards of practice. For safety advice please refer to the material safety data sheet.

■ **Packing Sizes**

ELFLUX 2001 NC – as well as Thinner 201 - are available in 10 L and 20 L containers.

■ **Storage**

ELFLUX 2001 NC is flammable. Store away from sources of ignition. Observe a temperature range of 5 – 25 °C.

■ **Shelf Life**

Under adequate conditions ELFLUX 2001 NC can be stored in original unopened containers for a minimum of 12 months

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