

Technical Product Information

ELFLUX 2001 NC MOD Flux for Solar Industries

General Description

ELFLUX 2001 NC MOD is a solvent-based no clean flux for use in soldering of Solar cells and printed circuit boards. The flux has a reduced solid content, is halide free, and also suitable for lead-free soldering.

ELFLUX 2001 NC MOD provides improved wetting and leaves extremely few, non-tacky residues. The residues are non-conductive, non-corrosive and of light color. Electrical in-circuit testing is possible without any problem. Since the solder joints show only very few light residues, in general cleaning is not required. ELFLUX 2001 NC MOD contains a very light thermally stable resin, which does not cause any discoloration or outgassing.

Areas of Use

ELFLUX 2001 NC MOD has been developed especially for processes in solar industries, particularly for soldering Solar Modules.

Classification

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

Technical Specification

	ELFLUX 2001 NC MOD	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
Solid content [%] (Per IPC-TM-650 2.3.34)	2.6	None
VOC content [%]	> 95, Solvent-based	100, solvent
Acid number [mgKOH/g flux]	18 ± 2	None
Halides [%]	None	None
pH-value (20°C)	4	Neutral
Flash point [°C]	12	12
Ignition temperature [%]	399	399
Recommended Thinner	Thinner 201	

Application

ELFLUX 2001 NC MOD can be applied by foaming, spraying or dipping. The flux will provide a uniform foam head with small air bubbles. The optimum preheat temperature for 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 even higher process temperatures which are used for soldering solar modules 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 MOD is a no clean flux. Cleaning is not required in general. 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 MOD 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 MOD – as well as Thinner 201 – are available in 10 L and 20 L containers.

Storage

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

Shelf Life

Under adequate conditions ELFLUX 2001 NC MOD 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.