

NanoSlic™ Stencil

INTRODUCTION

The NanoSlic™ stencil is a Slic™ solder paste stencil with a permanent Nano Coating applied, to reduce underside cleaning and bridging. NanoSlic™ provides a marked improvement in transfer efficiency.

ATTRIBUTES

- Significantly reduces the need for underside cleaning
- Superior print definition even at low SARs < 0.60
- Increases transfer efficiency. Internal studies show an increase of 10 to 40% of solder paste volume, dependent upon aperture SAR.
- Reduces solder bridging
- Highly cost effective
- The NanoSlic™ coating is ECHA REACH, RoHS and RoHS 2 compliant

APPLICATION

The NanoSlic™ stencil is the most advanced solder paste stencil available today. Building on the proven benefits of the Slic™ stencil, advanced chemistry is used to impart a highly Hydrophobic and Oleophobic surface to the apertures and underside of the stencil. This non-stick surface resists solder paste build-up, significantly reducing the frequency of cleaning cycles. The Nano coating is permanently bonded to and conforms to aperture walls regardless of size or geometry. The NanoSlic™ stencil improves paste release, enabling high yield printing at low SARs (surface area ratios) 0.60 and below. NanoSlic™ has a robust, abrasion resistant surface that stands up to repeated cleaning.

AVAILABILITY

The NanoSlic™ Stencil is available for purchase through FCT Assembly – Fine Line Stencil division, which includes your custom stencil design with our permanent Nano Coating.

TEST RESULTS

Physical Properties	Values
Appearance	Light yellow-orange
Thickness of coating	2 to 4 microns
Specific Gravity @ 25°C	1.5 g/cm ³
Static contact angle, water	103 - 105 °
Static contact angle, n-hexadecane	62 - 64 °
Abrasion resistance, ASTM D2486, Isopropyl Alcohol	>2000 cycles
Abrasion resistance, ASTM D2486, IPA Based Flux	>2000 cycles

CLEANER COMPATABILITY

The following stencil cleaners have been tested and found to be compatible with NanoSlic™.

Kyzen: Exaklean E5611, Aquanox A8820, Kyzen E5615, Cybersolv C3400, Cybersolv C8622

Petroferm: Axarel 2200, Bioact SC-10, Bioact SC-22, Hydrex A-Plus, Hydrex SP-50

Zestron: Vigon SC200, Vigon SC202, Vigon SC210, Vigon UC160, SD100, SD301, SW.

The following cleaners are not recommended for use with NanoSlic™:

Zestron Atron SP200

SAFETY AND HANDLING

Refer to the Material Safety Data Sheet for further information.