

Supplier information

Guidelines changeover printing

dresden elektronik manufactures assemblies with final assembly painting on behalf of the customer, whose design and layout do not meet the technical requirements of the painting. Vias in areas to be painted sometimes cause serious paint defects on the opposite side. In individual cases, the customer is not in a position to change the design and layout. Dresden Elektronik nevertheless endeavors to fulfill the customer's request for painting of the assembly in the best possible way. The following specifications are made for this purpose.

PCBs without SMD areas

- Specification by Dresden Elektronik (hole diameter, side to be printed)
- Creation of the layer by the LP supplier (increased non-recurring costs) for printing the changeover
- After creation of the layer, the data is transferred to Dresden Elektronik. Layer is released for production by Dresden Elektronik
- Production according to IPC 4761 IIIa
- no surface restriction (use of surface chem. Ni/Au)
- no restriction in terms of pressure height (approx. 130µm after burn-in process)
- The transfer stations are closed with a circumferential pressure of 300µm greater than the stop varnish clearance of the transfer station, whereby the distance to adjacent solder pads must not be less than $\geq 350\mu\text{m}$. In order to minimize the diameter of the transfer print, the circumferential 50µm clearance of the transfer solder eye in the stop varnish can be minimized to a circumferential 50µm greater than the final diameter of the transfer.

PCBs without SMD areas

- Dresden Elektronik specification (hole diameter; side to be printed)
- Creation of the layer for the new printing by the LP supplier (increased one-time costs)
- After creation of the layer, the data is transferred to Dresden Elektronik. Layer is released by Dresden Elektronik for production
- Production according to IPC 4761 IIIa, or according to special technology. Surface must be chem. Ni/Au
- Printing with a screen is mandatory (no transfer stencil!) Thickness restriction of the transfer print to 50µm above stop varnish level
- The transfer stencil is printed with a circumferential distance of 300µm greater than the stop varnish clearance of the transfer stencil, whereby the distance to adjacent solder pads and SMD pads must not be less than $\geq 350\mu\text{m}$.
- If the specified values are not met, special technologies must be implemented.

Two designs are possible for this purpose.

1. feed pressure smaller than stop varnish clearance: end diameter: 0.3mm solder eye diameter: 0.6mm
Stop varnish free: 0.7mm diameter Zudruck: 0.4mm zwingend: Surface chem. Ni/Au

2. add. pressure greater than stop varnish free: final diameter: 0.3mm solder joint diameter: 0.6mm
stop varnish free: 0.4mm diameter of soldering pressure: 0.5mm

The decision as to which design is to be used for the additional print is to be made depending on the distance to neighboring solder pads or SMD pads. Generally not permitted are:

Printing on SMD pads

Printing on solder pads

Printing on transfer pads that have been positioned in ground planes that are free of stop varnish (holes that are probably used for heat dissipation).

If the layout design is such that the specifications are not met, Dresden Elektronik must be informed and make the decision on how to deal with this problem.