
Tips for processing UV cross-linking screen printing adhesives

Processing UV cross-linking adhesives is unproblematic with regard to the printing process and is comparable to UV printing inks in general use.

To avoid foaming on the substrate to be printed, only medium flood and print speeds should be used as a rule. The stencil mesh should in any case be stretched more than 20 N / cm. Printing squeegees with Shore A - hardness of approx. 75 or so-called triplex squeegee blades with Shore A - hardness 65/90/65 and slightly rounded edges are recommended. The angle of attack should be approx. 75°. Snap-off should be 3-4 mm.

Printing breaks are not a problem since the adhesive does not tend to thicken. However, the effect of UV light and direct sunlight on the stencil must be avoided as the adhesive will react.

Thinning is not possible nor is it necessary.

Drying takes place through chemical cross-linking, which is initiated by UV light. This cross-linking process is determined by the type and dosage of UV radiation and is the most important and sensitive step in processing UV cross-linking adhesives. Only correctly cross-linked adhesive films will give you the required adhesive properties.

Poorly cross-linked adhesive coatings are usually very soft and greasy with low strength and poor temperature resistance. Skin contact with such adhesive coatings must be carefully avoided due to non-cross-linked residual monomers.

To ensure constant quality, the UV dosage must be checked several times during production, if possible even continuously. Our adhesive application technology centre will be happy to advise you.

When covering with silicone paper, we recommend bubble-free lamination of the covering material.

Mould release agents, for example, remain on pressure-cast parts, and are not conducive for good adhesive wetting. It is therefore advisable to clean such parts beforehand.

With some printing inks, the adhesive has poor adhesion due to additives in the printing ink, which contain silicone. By using silicone-free matt background printing inks, the bond can be improved.

Good adhesive values are only achieved if the adhesive has a sufficient coating thickness. Wherever screen-printing adhesives are used as a substitute for double-sided adhesive tape, the use of a 36-90 mesh is recommended, as this will give you an adhesive coating thickness of approx. 45 - 50 µm when dry.

Further details on the adhesives used can be found in the relevant technical information. For more information please feel free to contact our applications technology centre: info@kiwo.de.