



Digital textile printing

Registration stability

KIWOTEX adhesives for printing blankets



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ALBERT ROSE CHEMICALS

Adhesives for digital textile printing

KIWOTEX® Digital P 70

Solvent based, permanent adhesive for fixing goods during digital textile printing. It is used for the self-adhesive coating of printing blankets. KIWOTEX Digital P 70 has a good resistance against printing inks, can be used for many printing cycles and allows a very good penetration of the ink. By mixing with KIWOTEX Digital T 30 the tack can be reduced for special fabric types and can be adapted for various applications and requirements.

KIWOTEX® Digital T 30 / KIWOTEX® Digital T 50

Thermoplastic textile permanent adhesives for coating printing blankets which are activated, i.e. made temporarily tacky, by the application of heat. They have a low tack at room temperature, which increases with rising temperature. A special field of application is fabric fixation in digital textile printing, they have an activation range at approx. 30 °C to 70 °C.

Stripper (adhesive remover)

KIWOTEX® Stripper

Has a mild odour and is a highly efficient solvent mixture for the cleaning of printing paste residues, as well as the quick removal of permanent and thermoplastic adhesives from the printing blanket. KIWOTEX Stripper is not suitable for PVC printing blankets.

Process recommendations for KIWOTEX Digital

KIWOTEX® Digital T 30 / KIWOTEX® Digital T 50 / KIWOTEX® Digital P 70

The durability of the adhesive layer depends on the respective basic conditions, particularly the dye and the substrates to be printed. While printing, the surface is being contaminated by dirt particles, for instance, which leads to a slow decrease of the bonding strength.

Make sure that the job is done neatly and accurately during all steps of applying the adhesive. Any inaccurate work leads to insufficient stability of the adhesive on the printing blanket, which then prematurely require a new coating.



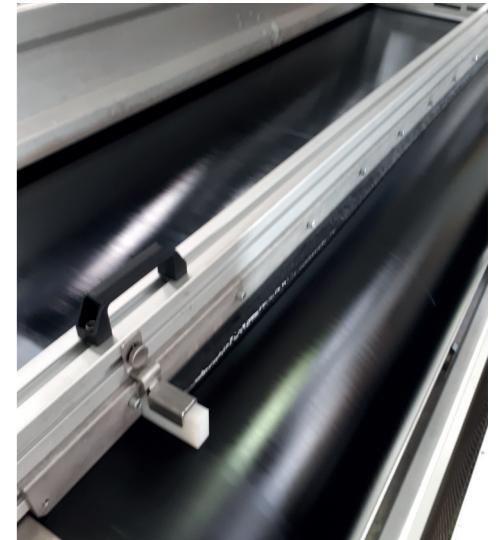
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1. Cleaning of the printing blanket and stripping of the used permanent adhesive

Before applying permanent adhesives, the printing blanket must be thoroughly cleaned. Cleaning the printing blanket with water and cleaning aid (soap) is not sufficient. New, unused blankets should be cleaned with abrasive cleaners according to the manufacturer's instructions and roughened to optimize the adhesion. Dirt, adhesive residues, etc. are best removed with KIWOTEX Stripper or recommended cleaner. At the same time, an optimal pretreatment for the subsequent work steps is achieved by this cleaning process.

After the adhesive has been removed, check whether the surface of the printing blanket, and in particular the printing edge regions, are free of adhesive residues. Adhesive residues make a uniform new coating impossible! Such residues are removed manually with KIWOTEX Stripper or recommended cleaner and cleaning cloth.



2. Coating

KIWOTEX Digital P 70 and KIWOTEX Digital T 30 can be blended which means that the required adhesive properties can be adjusted.

Application Suggestions

Substrate	KIWOTEX	Remarks
Textiles	2 Parts KIWOTEX Digital T 30 1 Part KIWOTEX Digital P 70	Mixing ratio can be changed to adjust adhesive strength
Transfer paper	KIWOTEX Digital T 50	To increase the tackiness, it is possible to mix with KIWOTEX Digital T 30

Coating - product preparation

Depending on the required adhesive strength, the mixture of the two components can be varied for the required application.

Rate: 300-400 g/m² of adhesive mixture are required for the printing blanket coating.

For a printing width of 1800 mm and a printing blanket length of 5000 mm (= 9 m²) use: 2.7 - 3.6 kg.

For mixing, scaled mixing cups can be used. The correct amount can be measured by volume in the mixing cup, or by weight with a scale (recommended for accurate work). Mixing can be done by hand.

For all coatings, make sure that a sufficient amount of adhesive is applied to the printing blanket. A coating that is too thin usually results in an inadequate adhesion of the adhesive on the printing blanket, whereas an excessively thick adhesive application may have a drop in the printing material and an uneven pressure drop to the sheet.

Supporting Blade

Depending on the machine design, there is a wide range of different application trays. Observe the instructions of the machine manufacturer. Usually, a round blade is used. This must be placed on the printing blanket and should not rotate during the adhesive application.

Coating Speed

Coating speed is about 150 - 300 cm/min., depending on the printing blanket's length. Longer printing blankets can be coated with a higher printing blanket speed. The total coating time should not exceed 1.5 hrs to avoid drying, skin formation, blistering, etc. of the adhesive at the applicator blade.

The doctor squeegee should not run out of adhesive during application. To finish, water or thickener is added instead of glue and the doctor blade is lifted to avoid marks on the printing blanket.

Coating Cycles

Approx. 5 - 10 circuits. The number of cycles necessary to apply the adhesive mixture varies. It is dependent on:

- Squeegee shape and pressure
- Printing blanket speed
- Rheology and degree of dilution of the adhesive

Drying

Depends on applied quantity and ambient temperatures, but at least 4 hrs with circulating printing blanket.

3. Refreshing the coating

Before over-coating remove lint and inks.

Recoat the belt when needed by mixing 30-50 g/m² of the appropriate adhesive blend. Approx. 1 - 2 circuits of the blanket.

Contact

Kissel + Wolf GmbH
In den Ziegelwiesen 6
69168 Wiesloch
Germany

Phone +49 6222 578-0
Fax +49 6222 578-100

arc@kiwo.de

ARC
ONLINE

