

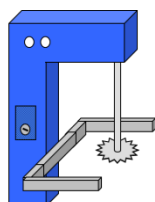
Printing with Water-based Screen Printing Inks

Storage of water based inks

Water based inks should be stored between **5 °C and 25 °C (40 °F and 75 °F)** because of their sensitivity to frost and heat. Temperature below 5 °C may cause coagulation of the binder molecules, the ink or varnish may agglutinate and become unusable.

Printing with water-based inks

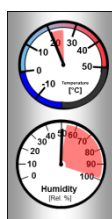
The ink is mixed with defoamer and water (and crosslinker if necessary) directly before starting to print. Potlife is at least 8 hours.



The ink should be stirred up with adequate equipment, if matting agents or pigments have settled in binders of low viscosity.



Do not scratch dried ink in the can and mix with liquid ink, it will not redissolve and cause problems during printing.



Temperature in the printing room should be between **18 °C and 25 °C (65 °F and 75 °F)**, the air humidity should be at least 50 %, better 60 % to 70 %.

Printing with Water-based Screen Printing Inks

1. Wet the stencil with water prior to the printing process



By wetting the stencil the flow of the ink is not hindered through the mesh.

A dry stencil can cause bad printing results, especially when printing half-tone motives and fine lines.

2. Production



Put a layer of ink on the stencil (1 – 2 mm) (0.04 – 0.08 inch)).

For partly or fully automatic machines the use of a flood bar whose edge is thick and rounded and which only lies slightly on the stencil is recommended.

Immediately after printing the stencil has to be filled with ink again (approx. 1 – 2 mm (0.04 – 0.08 inch)).

Handling the ink in this way provides a trouble-free production.

2.1. Short printing stops up to 3 minutes

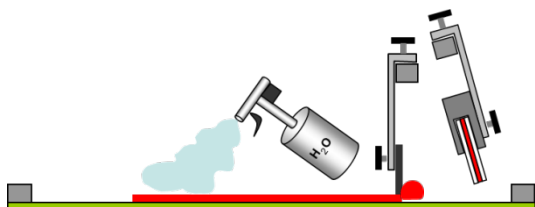


The stencil should be left as shown in the picture, with the ink fully covering stencil.

This enables short printing stops up to 3 minutes without screen cleaning, for example for checking the printing result.

Printing with Water-based Screen Printing Inks

2.2. Printing stops up to 15 minutes



The screen has to be filled thickly with ink and has to be sprayed additionally with water as shown in the picture.

This prevents water from evaporation from the ink and hence alleviates ink drying in the mesh.

After the stop, waste sheets should be printed until the motives are clear again.

2.3. Printing stops longer than 15 minutes

It is recommended to wipe out the screen prior to the stop and to wash out the printing motive with Aqua-Jet® Liquid Cleaner L 47603.

3. Cleaning

During printing the stencil can be washed with Aqua-Jet® Liquid Cleaner L 47603 if necessary.

Ink not moved while printing should be put back into the printing area, the border area should be kept humid.

After printing the ink should be cleaned immediately, before it is too dry.

Screen and tools are sprayed with Aqua-Jet® Liquid Cleaner L 47603 and cleaned subsequently.

Solvent free Cleaner Concentrate 6953 is also very good for cleaning in pure or diluted condition (see its own Technical Information).

Strongly dried ink can be removed with solvent based Cleaner 6614.