

# Technical Information

Replaces the Technical Information dated 25.11.11

## POLYTEX<sup>®</sup> BETA/1

### Water resistant, one-component photopolymer emulsion

POLYTEX BETA/1 is used for the production of stencils which are resistant to aqueous printing media. The most important field of application is textile printing, as e.g. T-shirt or flag printing. POLYTEX BETA/1 is highly sensitive to light and, thus, also suitable for CTS and direct-projection systems, as well as wax jet systems.

**SENSITIZING** Not applicable, as ready to use. Please note that POLYTEX BETA/1 should only be applied under yellow light.

**DEGREASING** Before coating it is recommended to clean and degrease the screen mesh to achieve reproducible coating results. Ensure proper tension of the screen mesh. Use manual degreasers of the PREGAN range or KIWOCLEAN degreasing concentrates for automatic units (see separate Technical Information). After thorough rinsing with water and drying, the screens are ready for coating.

**COATING** Preferably use mesh between 43-80 W and 77-48 W for applying POLYTEX BETA/1. In textile printing, the mesh is generally coated 1-1, i.e. the coating is first done from the printing side. Only then begin with the coating from the squeegee side. The use of the coating machine is particularly advantageous, since it permits an absolute even and reproducible coating result.

**DRYING** In order to achieve highest resistances as well as optimum exposure and developing results of the stencil, the coated screens must be well dried before exposure. Drying is preferably effected in a dust-free drying cabinet with fresh air circulation at 35-40°C. If very big screen sizes make drying in the drying cabinet impossible the temperature should be increased compared to the room temperature (e.g. with a fan heater) and the humid air should be lead off.

**EXPOSURE** The stencil is created by UV-light hardening of the non-printing stencil parts. Exposure in blue actinic light in a wave length of 320-380 nm. Owing to the great number of parameters that can have an influence on exposure time, no absolute values can be given. Optimum copying results can only be achieved by trials (step exposure).

The exposure times for the direct projection system may depend on the distance of the stencil and the quality of the direct projection unit. Guide values for a 1-1 coating and 1:10 magnification: approx. 100 sec. exposure time.

**POST-HARDENING** POLYTEX BETA/1 stencils also achieve high printing runs when printing with aqueous media without post-treatment. However, when exposed to extreme stress and when highest solvent resistance is required, POLYTEX BETA/1 can be post-hardened with various hardeners of the ARC-sales range. Please contact your agent or the ARC-Department for Applied Technology.

**RETOUCHING /  
BLOCKING OUT**

For retouching / blocking-out, products of the KIWOFILLER-range can be used. Please contact your agent or the ARC.

**DECOATING  
(unhardened screen)**

The stencil, which is thoroughly cleaned from any remaining inks with water or appropriate cleaning agents (e.g. products of the KIWOCLEAN AQ range) can be decoated with PREGASOL-products (e.g. PREGASOL F, -EP 3). Due to the high durability, a high pressure unit is in general necessary. The possibly remaining resin hazes can be removed by treatment with post-cleaning products. Please contact your agent or the ARC-.

**NOTICE**

The printing resistance of a textile stencil depends on many different parameters, e.g. type of the screen, coating technique, drying, exposure time etc. Furthermore, in practical work, a large variety of printing media and printing machines are in use, all of which cannot be included in our preliminary tests. Please ask for samples to conduct your own trials under local working conditions in order to ensure that our products meet your requirements. We accept responsibility for consistent screen quality only under our working conditions.

Observe the Material Safety Data Sheet.

---

**COLOUR**

Blue

**VISCOSITY**

Approx. 2100 mPas (Rheomat RM 180, MS 33, D = 100 s<sup>-1</sup>, 23°C)

**STORAGE**

1 year (at 20 - 25 °C in closed original container).

Store protected against frost.

Screens coated in advance: at least 4 weeks at 20°C and in complete darkness. Dry again prior to copying.