KIWOMASK PR 216

Solvent resistant, UV definable protective medium

Photo-definable, Diazo-sensitized protective lacquer/ resist for producing very fine details (≈40 µm) on plastic substrates (e.g. polycarbonate film). Applied on full areas with a squeegee, imaged by UV exposure. Very suitable for various plasma processes (sputtering) and resistant against solvent based media, e.g. those used for physical etching.

SENSITIZING

With DIAZO NO. 6. Let degas over night, optional with DIAZO NO 41 for very fine details.

COATING

1. Coating by casting
Apply the desired thickness onto the substrate using spacers (e.g. adhesive tape). Pour the emulsion on the surface and distribute slowly using a sharp-edged squeegee.

DRYING

The screen must be dried thoroughly before exposing to achieve the highest abrasion resistance. This should preferably be done in a dust-free drying chamber with fresh air inlet at temperatures of between 35-40°C. Drying at ambient temperature can be of advantage for degassing.

EXPOSURE

The stencil is created by UV-light hardening of the non-printing stencil parts. Expose with blue actinic light at a wave length of 350-400 nm. A metal halide lamp provides the best results. Due to the many variables that determine the actual exposure time, no absolute values can be given. Optimum copying results can only be achieved by trials (step exposure). For best resistances please choose an exposure time which is as long as possible. This maximum exposure must still allow copying of fine details.

Guide values:
Light source: 5.000 W metal halide lamp at a distance of 1 m:

Wet film thickness	Dry film thickness	Exposure time
90 µm	30 µm	approx. 1 minute

A light haze can remain in the open areas after developing. When sandblasting this haze will be removed.

DECOATING

KIWOMASK PR 216 can be decoated using PREGASOL 820.

COLOUR

Unsensitized: turquoise
Sensitized: green

VISCOSITY

Approx. 1.500 mPas (Theomat RM 180, MS33, D = 100 s^{-1}, 23°C)

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HEALTH HAZARDS/ ENVIRONMENTAL PROTECTION

Please follow further information given in the material safety data sheet.

STORAGE

9 months (at 20-25°C in the original container). Protect against freezing.

Objects coated in advance: at least 4 weeks (at 20°C and in complete darkness). Dry again at 35-40°C prior to copying.