ZOICO DUAL FX

Screen printing emulsion for all types of inks

DESCRIPTION

Emulsion diazo photopolymer (Dual-cure) for solvent, water-based inks, and UV. Excellent resolution. High mechanical resistance. Good recovery.

APLICATIONS

Conventional printing on paper, cardboard and plastics.
Garment printing (plastisol).
PVC printing and adhesives.
Vitrifiable decals

PROPIERTIES

Good copy quality.
Excellent resistance to solvent-based inks.
Acceptable resistance to water-based inks, emulsion without catalyzer (chemically hardened)
Good resistance to water-based inks, catalyzed emulsion (chemically hardened)
Good mechanical resistance

MANIPULATION

Pot life of closed container (original)	12 months, between 5 to 30ºC
Pot life of sensitized container – open	3 months, between 5 to 25ºC
Expose life of coated screen	2 weeks (dark room)
Screen recovery	Good
Exposure time 5000 W Halogen	1+1 coats (90 mesh) / 90 seconds approx.

SPECIFICATIONS

Kind of sensitizer	Diazo photo polymer
Colour	Blue
Relative sensibility	Fast
Resolution	High
Viscosity	High
Solids content	35%
Hardener – chemically hardened	Yes, with **FIXAPLAST H3**

STORAGE

Do not expose to temperatures below 5ºC or up to 30ºC. Expiration 24 moths for closed package and under correct temperature conditions.

PACKAGING

Box 12 Kg. (12 x 1 Kg.) / Box 10 Kg. (2 x 5 Kg.)

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HOW TO USE

Emulsion sensitizing
It must be sensitized with the supplied sensitizer:

- Pour the diazo directly into the emulsion bottle and shake until completely incorporated (recommended).
- You can also add distilled water to the diazo bottle and shake well, until the diazo is completely dissolved. Then pour the solution into the emulsion bottle and shake until completely incorporated.
- Let the emulsion sit after sensitizing to allow air bubbles to escape for at least 20 minutes.
- Store the emulsion in a cool, dark place (20ºC / 68ºF) during this process.

Screen preparation
The mesh must be free of dirt, dust, ink residues, emulsion, and ghost image. In order to achieve a good screen, previously degrease the mesh on both sides with **PREPAMASK** , **KAUSTIMASK S or STARGEL 350**, and then rinse thoroughly with water in order to remove any degreaser rests remaining on the screen.

Coating procedure
Depending on the kind of mesh, always start with 1 or 2 coats in both sides of the screen to fill all the mesh openings. Leave the emulsion dry completely in a temperature up to 40ºC.

To improve and to ensure a maximum quality of copy and mechanical resistance, we recommend finishing with wet-on-dry coats on the printing face to build up the emulsion coating to the desired thickness.
Repeat the process of drying and coating as times as necessary to achieve the thickness wanted.

Drying of the coated screen
Dry the screen in horizontal position with the surface side down, under absolute darkness or safelight conditions, with a temperature of 30º – 40ºC (86º - 104ºF), a relative humidity of 30% - 50% and a moderate airflow.

Temperature, relative humidity, and airflow affect the drying time. The screen **must be completely dried** before exposure, that way we will achieve a higher resistance to ink and ink cleaners. Drying the screen at higher temperatures than recommended, or under different conditions than mentioned may lead to inconsistent results and varying resistance.

Exposure
Expose the screen to ultraviolet light with a wavelength of 350 – 420 nm. Use a halogen lamp for best results. Because there are many factors that intervene in the exposure time, we cannot give precise times without doing a prior test.

The correct exposure time is the maximum time that achieves the optimal resolution, which must be determined by successive tests, with a gradual exposure or with an exposure calculator such as **CONTROL STRIP KS1**.

Overexposure leads to a loss of detail. Properly exposed screens will withstand water pressure during washing.

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Developing and washout
Adjust the water temperature between 20ºC and 26ºC. Gently rinse the screen on both sides with water. After 1 or 2 minutes rinse thoroughly on both sides of the screen, with a higher tap water pressure, until the developing has finished successfully.

Post-exposure
To improve resistance, post-exposure time ought to be 2 – 4 times the original exposure time, always after developing and drying.

Hardened / Chemically catalysed.
With screen completely dried, apply for both sides **"FIXPLAST H3"** with a sponge and leave to dry on horizontal position in a temperature of 40ºC / 45ºC for at least 2 hours, even we recommend to leave for 3 to 4 hours to achieve the maximum hardness.

It can be also hardener in a temperature between 20 to 25ºC for 12-24 hours.

NOTE: Once the screen is hardened, it would be more difficult to recover it.

Touch-up / blockout
Only for solvent based inks resistant screens, retouch with **BLOCOFIX.**

Decoating / emulsion removal
Use emulsion removers such as **SCREEN STRIP** or **SERI CERO GEL** in order to remove the emulsion from the screen. Before removing the emulsion, make sure that the screen is completely free of ink using DISOLIX ECO or an ink residue cleaner.

Ghost image removal
When under-exposed, the emulsion can cause haze or ghost image. To remove it, use **KAUSTIMASK S**, **STARGEL 350** o **ZERO GHOST**. Mixing **KAUSTIMASK** S with **DISOLIX GEL** at 50% is also a very effective way of removing ink haze.

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