VIVID ZEBRA 708 SOLO

One-component photopolymer emulsion for textile

EMULSION FOR GARMENT PRINTING

One-component photopolymer emulsion for textile Non PVC, Discharge and HD printing

Zebra 708 solo is used for the production of textile and screen printing stencils which are resistant to Water base and Oil base Inks printing media. Also suitable for printing Non PVC, Plastisol and discharge inks.

- High Solids Content 41 %
- Medium High Viscosity
- Screens have excellent definition and resolution
- Excellent coat ability on a variety of mesh counts

DIRECTIONS FOR USE:

1. SENSITIZING Not applicable, as ready-to-use.

In order to achieve very high printing resistance, e.g. when using aqueous or very aggressive discharge inks, Zebra 708 solo can be sensitized with DIAZO. The sensitized emulsion can be stored at least 2 weeks (at 20-25°C). In this case, use only half of the usually recommended quantity of water for dissolving the Diazo powder so as to avoid a decrease in viscosity.

2. Degreasing- To achieve consistent, good quality stencils, degrease mesh with a good quality commercial degreaser such as Zebra's Prep. DEGREASER For degreasers used.

Mesh should be free of all contaminates such as ink and emulsion residues, oil, dust, and ghost/haze images prior to emulsion coating. For best results, thoroughly brush both sides of screen with Degreasing agent (Zebra's Prep.) Using a pressure washer to remove degreaser will help remove stubborn mesh contaminates, but may also re-introduce impurities to the mesh caused by blowback from the washout booth. To reduce blowback risk, perform a final flood rinse using low water pressure.

3. Coatings - Zebra 708 Solo can be coated manually or by machine. The use of a coating machine is especially recommended because it achieves an even and reproducible coating result. Use a coating trough with a round edge of radius.

In order to avoid bubbles during coating, do not stir Zebra 708 Solo prior to use. Coat the stencil slowly and evenly. Ensure that the mesh openings are filled from the printing side with 2 coatings. Only then begin with the emulsion build-up from the squeegee side with 3 or 4 coatings, depending on the print job

Note: In order to avoid that the emulsion runs down the screen, especially when working with coarse mesh, we recommend turning the stencil by 180° after 4-5 coatings from the squeegee side and then continue coating from the squeegee side until achieving the desired emulsion thickness.

POST COATING When the stencil build-up thickness is very high, the anchoring of the emulsion to the mesh can be improved by additional two coats from the squeegee side. After drying the stencil again, then exposure.

4. Drying- Dry emulsion coated screens in complete darkness, or under safelight conditions, in a horizontal position with the substrate side facing down. Temperature, relative humidity and airflow affect the drying time. Screens must be dried thoroughly before exposing to achieve highest chemical (Water base ink and ink wash up cleaners) and mechanical (abrasion) resistance. Environmental conditions play a vital role.

Temperatures of 30°-40°C (86°-104°F) with a relative humidity of 30% - 50% maximum and moderate airflow are optimum conditions. Drying at room temperature and in uncontrolled conditions may lead to inconsistent results and varying screen resistance.

NOTE: Keep screens and all screen handling areas dry until exposure is complete. This includes storage, exposure preparation, and exposure areas, as photo emulsions reabsorb moisture if reintroduced to high humidity environments. Emulsions do not become humidity resistant until exposure, washout and drying are complete.

5. Exposure- Expose with ultra-violet light at a wavelength of 395 – 445 nm. UV Dose mj/cm, *Metal halide lamps provide the best results*.

Due to the many variables that determine optimum exposure time, accurate exposure times cannot be given. The following examples are offered as a guide only.

Lamp: 5000-Watt metal halide at 40" (1m) distance:

Correct exposure times for your equipment and mesh selection must be determined through exposure tests using an exposure calculator such as the Expo Check by Exposing Calculator.

Under-exposed screens feel slimy on the squeegee side during developing. At correct exposure time, the screen is not slimy

Overexposure leads to loss of small details. Correctly, exposed screens will withstand high water pressure during washout.

Please contact: Contact: Zebra Technical Team if you have further questions regarding exposure time.

This maximum exposure time must still allow reproduction of fine details.

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

Manual(M) or Automatic(MC) coating on Mesh	Coating technique	EOM(Microns)	Average exposure time
32T White	(M) 1PS+2SS, Dry 2PS	About 40 µm	4 to 5 minutes
59 White	3SS+2PS+Wp SS Dry 2PS	About 40 µm	4 to 5 minutes
32--70 White	(M) 2PS+3SS	About 170 µm	3 t0 6 minutes
	(MC) 1PS+1PS 1SS+1SS+1SS+1SS	About 210 µm	4 t0 6 minutes
	(M)2PS+6SS	About 210 µm	5 t0 8 minutes
43–80 White	2-4 (H)	About 100 µm	2 t0 4 minutes

PS = coating from the printing side, SS = coating from the squeegee side

6. Developing/ Washout- DEVELOPING Method One: The exposed stencil can be developed with free flow low water pressure from both sides, With the final washing preferably from the printing side. While developing/ rinsing the stencil become soft, therefore work carefully without too much water pressure.

Method Two: Before developing, put the exposed stencil into a container with cold water. After 5-10 min (depending on the stencil build-up thickness) the unexposed parts can be rinsed with the free flow water low water pressure.

POST CURING To achieve optimum resistance, the completely copied and dried stencil can be exposed again from the squeegee side, e.g. 3-5 min with a 5000 W metal halide lamp at a distance of approx. 1 m. Zebra 719H can be chemically hardened with Zebra Hardener products. Ask Zebra Technical team for advice.

7. Post- Exposure- Post-exposing the screen after developing and drying is not very effective. To improve the resistance 10-15% the post-exposure time needs to be four times the original exposure time. Exposing the screen fully with the primary exposure offers better resistance than under exposing initially, then post-exposing to improve resistance. Post exposure is most often used for long printing runs when water based and/or abrasive inks are used.

8. Post Hardening (Chemically)- The emulsion can be chemically post-hardened using one of Zebra Stencil hardeners. Stencil hardeners can be classified as reclaimable or un-reclaimable.

If reclaiming ability is desired, use Zebra Cure P.

If a permanent un-reclaimable stencil is desired, for example when Cataloging screens for future use, or when aggressive inks are used for very large print runs,

use Zebra Cure. See separate technical Information sheets for further details regarding Zebra Cure (Hardener's) stencil hardeners.

10. RECLAIMING - Zebra 708 Solo can be reclaimed with Zebra Strip

REMOVER before reclaiming ensures the screen is completely cleaned of ink or ink cleaning chemical residues. If water beads up on the stencil, residues are still present. If this is the case, degrease the screen again prior to reclaiming for best results.

For best results, work both sides of the screen i.e. apply stencil remover, brush, and pressure wash both sides of the screen. After applying stencil remover, a short dwell time may be used prior to pressure washing to allow more working time for the stencil remover especially when using coarser meshes and/or thicker stencils.

CAUTION: Never allow stencil removers to dry prior to removal, as the emulsion will become locked into the mesh and virtually impossible to remove.

See separate Technical Information sheets for further details regarding Zebra Strip stencil removers.

ADDITIONAL INFORMATION

For additional product information, please contact: Zebra Technical Team

Thank you for choosing VIVID CHEM.

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