



VIVID ZEBRA DZ 809

Diazo Dual Cure Photopolymer Direct Emulsions

Zebra 809 Blue Solvent and water resistant Diazo UV-polymer emulsion with solid content 35%.

Zebra 809 Blue A relatively short exposure time makes it suitable for the direct projection (Computer to Screen) system. Zebra 809 Blue is used for the production of high-quality, solvent, UV, water resistant Textile and (Plastisol) inks stencils. Especially suitable for printing with solvent aqueous printing media, e.g. water based adhesives water lacquers, water based plastic inks. Its outstanding copying properties make it the ideal choice for fine to fine detail and 4-color process work and A good built up stencils..

Zebra 809 Blue has superior strength against most solvents and ink washes, while remaining durable in humid environments and its flexibility offers very good mechanical resistance.

DIRECTIONS FOR USE:

Sensitizing - Diazo (Sensitize).

Step 1: Fill sensitizer bottle to the half full for size containers – preferably (50ml.) using warm distilled water. Cover lid with rag or paper towel to protect hands from leakage, then shake bottle until diazo is fully dissolved.

Step 2: Pour dissolved Diazo into emulsion.

Step 3: Repeat steps 1 and 2. (Each step 50ml.)

Step 4: Stir thoroughly and completely to assure proper mixing.

Step 5: Allow the mixed emulsion to de-bubble after sensitizing for Two hours.

Store emulsion in a cool (68°F / 20°C) dark place.

Diazo sensitizer dissolves easier in warm water and distilled water Assures no potentially detrimental heavy metal contamination occurs.

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 contaminants 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 contaminants, 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 - Coating can be done manually or by machine. The use of a when coating manually, begin on the substrate side of the screen with wet-on-wet coats until emulsion surfaces on the squeegee side (generally 2-3 coats). Then finish with wet-on-wet coats on the squeegee side to build up the emulsion coating to the desired thickness (generally 1-3 coats)

Depending on the printing requirements.

Zebra 809 Blue has excellent coating properties on mesh

Counts of 16T-185T threads per cm (40-470 threads per inch). For best

Printing results, the following coating techniques are recommended

Using a round (2 - 2.5 mm) edged coating trough:

16-34 T: (40-86 tpi)	2-1 wet-on-wet
40-61 T: (110-156 tpi)	2-2 wet-on-wet
69-120 T: (175-305 tpi)	2-2 wet-on-wet
130-185 T: (330-470 tpi)	2-2 wet-on-wet

For specific applications, and due to varied screen room equipment and conditions, the correct coating technique for your process must be determined through coating tests.

Contact: Zebra Technical Team for more specific coating techniques.

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 (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:

Mesh Count.T tpi (tpcm), Mesh Color, Coating Technique

Exposure Time

60-64T (156-64) Yellow 2-2 Blue~ 120 sec.

Un dyed (White Mesh) ~ 100 sec.

120-34T (305-34) Yellow 2-2 Blue ~ 60 sec.

Un dyed (White Mesh) ~ 50 sec.

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.

6. Developing/ Washout- Develop the screen using full pressure tap water and a medium spray pattern. Adjust the water temperature to lukewarm or slightly colder. Rinse thoroughly from both sides of the screen. Vacuum off any excess water or blot it off with blank newsprint paper. This will avoid runs or scum from under-exposure in the open areas.

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.

9. Reclaiming- Zebra 809 Blue can be reclaimed with Zebra Strip

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

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Disclaimer- This data sheet is for your information, Please check the product's suitability for a peculiar application before use. No responsibilities can be undertaken for occurring damages. Our products are subject to a continuous production and quality control and leave our factory in perfect condition.

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