

VIVID ZEBRA DZ 140

Water resistant diazo – emulsion

# Product Usage

VIVID Zebra DZ 140 is a blue colour water resistant diazo-emulsion having 44% Solid specifically designed for printing with water-based inks, plastisol inks and dispersion adhesives.

# Sensitizing

Sensitize with Diazo supplied. Fill diazo bottle according to the directions on the diazo bottles lables – preferably using warm distilled water. Diazo sensitizer dissolves easier in warm water and assures no potentially determined heavy metal contamination occurs.

# Degreasing

To achieve consistent, good quality stencils, degrease mesh with a good quality commercial degreaser suggested by our representative. For best results, thoroughly brush both sides of screen with degreasing agent. 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.

# **Coating Procedure**

Coating can be done manually or by machine. Use of the coating machine is especially recommended because it achieves a more reproducible coating result. 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. VIVID DZ 140 excellent coating properties on mesh counts of 40-305 threads per inch (16-120 threads per cm). Applications, and due to varied screen room equipment and conditions, the correct coating technique for your process must be determined through coating tests. Contact KIWO for more specific coating techniques.

#### 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 cleaners) and mechanical (abrasion) resistance. Environmental conditions play a vital role. Temperatures of 86°-104°F (30°-40°C) 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. TIP: 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.

#### Exposing

Expose with ultra-violet light at a wavelength of 350 – 420 nm. Metal halide lamps provide the best results. Due to the many variables that determine optimum exposure time, accurate exposure times cannot be given. 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.

### 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.

### Post - Exposure

Post-exposing the screen after developing and drying is not very effective. It only improves the resistance slightly; however the post exposure time needs to be at least four times the original exposure time. Instead of gaining resistance from postexposure, expose the screen fully with the initial exposure.

# Post - Hardening

The emulsion can be chemically post-hardened using recommended hardeners. Hardeners can be classified as reclaimable or un-reclaimable. If reclaiming ability is desired use as suggested by our executive. If a permanent un-reclaimable stencil is desired, for example when cataloguing screens for future use, or when aggressive inks are used for very large print runs, use the product as suggested.

# Block out / Touch-Up

Retouching and blocking out can be done with suggested by our representative. (Dry thoroughly and re-expose completely prior to using stencil hardeners).

# Reclaiming

Retouching and blocking out can be done with the recommended products as suggested by our representative. For a water resistance stencil (dry thoroughly and re-expose completely prior to using recommended hardeners).

### Packaging

900 gms