

CTS-HS™

HIGH RESOLUTION SBQ-DUAL CURE “HYBRID” EMULSION

CTS-HS is an SBQ-dual cure direct emulsion formulated for high resolution imaging with Computer-to-Screen exposure units. Blue in color, CTS-HS has excellent solvent resistance for printing with conventional and water-based UV inks, and most solvent-based inks. CTS-HS is durable, and has excellent resolution and definition. It has very good wet strength and is very easy to reclaim, even if underexposed. Solids: 37%. Viscosity: 5000 - 6000 cps (25° C.) Shelf life: one year.

INSTRUCTIONS

Step 1: PREPARE THE MESH

Used or surface treated mesh need only be degreased using **Screen Degreaser Liquid No. 3** or dilute **Screen Degreaser Concentrate No. 33** or **Degreaser Concentrate 1:20**, or **Magic Mesh Prep**. (Mechanical abrasion is an option for new mesh that is not surface treated. It increases the surface area of mesh for a better mechanical bond of the stencil, increasing printing run length. Use **Microgrit No. 2** before degreasing. Abrading and degreasing can be combined in one step with **Ulanogel 23**.) Rinse thoroughly. Use **Magic Mesh Prep** or **CDF Mesh Prep No. 25** to promote a uniform emulsion coating. (**Magic Mesh Prep** also acts as both a degreaser and an antistatic treatment.)

Step 2: SENSITIZING

CTS-HS is fully pre-sensitized. No sensitizer need be added. CTS-HS should be handled only under yellow safe light conditions.

Step 3: COATING THE SCREEN

Method 1: Apply one coat of emulsion on the printing side, then one coat on the squeegee side. Dry the screen thoroughly.

Method 2: Apply two coats on the printing side, then two coats on the squeegee side, wet-on-wet. After each coating, rotate the screen 180°.

Method 3: Follow Method 2 (above). Then, after drying the screen, apply two additional coats on the printing side, wet-on-wet.

Step 4: DRY THE SCREEN

Dry multicoated screens (Methods 2 or 3) thoroughly in a horizontal position, printing side down, at room temperature in a dirt- and dust-free area. Use a fan to speed drying. If using a commercial dryer, dry the screen with warm, filtered air, up to 104° F. (40° C.). Use a humidifier in the drying area, if possible.

Step 5: CALCULATE THE EXPOSURE

Refer to the Base Exposure Table (below). Base Exposure Time X Exposure Variable Factors = Approximate Exposure Time. Use the **Ulano Exposure Calculator** or a Step Wedge Test (Step 6) to determine the optimal exposure time.

Step 6: STEP WEDGE TEST

Calculate five test exposures—two below and two above the Approximate Exposure Time. Tape the test positive to the screen. Expose the screen for the shortest exposure time to be tested. Mask 1/5 of the positive and expose the screen to arrive at the next shortest exposure time. Repeat this procedure until five exposures are made, to arrive at the longest exposure time. Make a print from the stencil and compare it to the test positive. The optimum exposure is indicated by: ■ No positive outline or darkening of the emulsion color is observable if the exposure is increased. ■ The squeegee side emulsion is hard and not slimy. ■ The print best duplicates the test positive at the needed level of resolution.

Step 7: WASHOUT

After exposure, wet both sides of the screen with a gentle spray of cold water. Then spray forcefully from the printing side until the image areas clear. Rinse both sides of the screen with a gentle spray until no soft emulsion is left on the squeegee side, and no foam or bubbles remain. Blot excess water from the printing side with newsprint (unprinted newspaper stock).

Step 8: BLOCKOUT AND TOUCHUP

Option 1: Before drying and exposing the coated screen, use excess emulsion from the coating step to cover the blockout area.

Option 2: For non-water-based inks, after exposure and washout, dry the screen. Apply **Red Blockout, Screen Filler No. 60**, or **Extra Heavy Blockout No. 10**.

Touchup Option 1: Use excess emulsion and re-expose the screen.

Touchup Option 2: For non-water-based inks, use **Red Blockout, Screen Filler No. 60**, or **Extra Heavy Blockout No. 10** thinned with water.

Step 9: STENCIL REMOVAL

Remove ink from the screen using the solvent or solvent blend recommended by the ink manufacturer. Use **Screen Degreaser Liquid No. 3** to help remove ink and solvent residues that might impair the action of the stencil remover. Brush **Stencil Remover Liquid No. 4** or **Stencil Remover Paste No. 5** on both sides of the screen. Do not let the stencil remover dry on the screen. Wash the screen with a forceful spray of water. Use **Haze Remover No. 78** or **Ghost Remover** with **Ghost Remover Activator** to remove ink and haze residues, if necessary.

FOR ADDITIONAL INFORMATION PLEASE CONTACT YOUR LOCAL DISTRIBUTOR OR www.ulano.com

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