

LUMI OMEGA 5

TECHNICAL DATA SHEET

LUMI OMEGA 5 is a violet photo emulsion designed to make screens for textile printing. It has an excellent water, plastisol and discharge inks resistance. It develops a very high resolution, good edge definition and cut.

For larger production runs with water-based or discharge inks, we recommend to use Lumina Emulsion Hardener 300X.

MAIN FEATURES

1. Excellent resolution on halftones and thin lines.
2. High solids.
3. Violet color for a better thru visibility and art review.
4. High production runs.
5. Optimal viscosity for consistent and thin films.
6. Effective with Fluorescent light, Pulsed Xenon, Mercury bulbs, Metal-Halogen, UV- LED.

DIRECTIONS

1. **Screen Preparation:** To improve the emulsion adherence on new mesh, it is recommended to treat the screen with SCREENPREP PASTE 90; if the screen has been previously used it may be degreased with GREASEKILLER 7, please refer to the corresponding Data Sheets.
2. **Sensitizer Preparation:** Dilute the sensitizer DIAZO M5 on its container with lukewarm water (104°F/40°C). Fill the container until it reaches the neck of the bottle. Close it and shake it. Mix the whole diluted diazo with all the emulsion on the corresponding container to assure that the diazo/emulsion proportion is kept properly. Mix with a clean spatula until a total homogenization is achieved. Avoid creating too much turbulence when stirring to avoid bubble or foam formation. Once it is already mixed, let the product sit for a few minutes to allow bubble release. If the user does not want

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to mix the whole emulsion container, please proceed mixing with the following proportion:

Lumi Omega 5: 100 p

Diazo M5 (prepared): 3 p

3. **Screen Coating:** Apply one or two layers of sensitized screen emulsion to both sides of the printing screen. The number of layers will depend on the desired thickness.
4. **Screen Drying:** The screen drying station must be dust and dirt free. The screen must be placed on the dryer upon the printing side and in a horizontal position. The temperature must not rise above 40°C (104°F).
5. **Light Exposure Time:** The coated screen must be placed in the exposure unit as long as it is needed depending on the type of light, coat thickness, and mesh.
6. **Developing:** Rinse the screen on both sides with low pressured water, then, proceed to repeat the process with high pressured water until the desired image is shown. Finally, end the process by drying the screen.
7. **Hardening of stencil:** To increase the resistance of the screen, re-expose it with three times the time applied regularly after drying. If a much longer run is desired, harden the screen with EMULSION HARDENER 300X or EMULSION HARDENER 300X CLEAR.
8. **Screen Reclaiming:** Remove water-based and plastisol ink with ECOSOL PL, then, once the screen is cleaned, apply a screen emulsion remover such as LIQUIDATOR 100 or ULTRA CRYSTAL 100 and rinse the screen thoroughly. To eliminate any remaining ink stain, use PHANTOM GO IV. Please refer to the corresponding Data Sheet.

BASE EXPOSURE TABLE

The following table shows the proposed times with different sources of light, the stencils were made with white mesh 61-64cm. (155in).

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LIGHT SOURCES	COATHING METHOD	
	1	2
UV-LED		
1000 watts	40s	50s
METAL HALIDE		
500 watts	2.5min	3.5min
1000 watts	1.5min	2.7min
2000 watts	40s	1.4min
3000 watts	20s	40s
FLUORESCENT LIGHT		
10 tubes of 20 watts	2.5min	3min
10 tubes of 40 watts	1.8min	1.5min

Coating Method:

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

Method 2: Apply two coats on the printing side, and then repeat on the squeegee side, wet on wet. Dry the screen thoroughly.

STORAGE

Lumi Omega 5 may be stored for up to 1 year. It is recommended a dark, fresh, dry and clean environment. Storage temperature: 20-25°C (68-77°F).

Note: If the emulsion is sensitized, this product may be stored up for 3-6 weeks.

CHEMICAL CONTENT

This product does not present as part of its formulation heavy metals (Hg, Co, Cd, Pb, Sn), phthalates, formaldehyde, Alquilfenoles (AP), Alquilfenoles etoxilados (APEOs), Organotin compounds, among others.

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