UV LITHO CLEAR

High Gloss UV Ink for Overprinting Lithography

Features
- Water White Clarity
- Highly Flexible for Scoring and Die Cutting
- Block Resistant
- Excellent Slip

Substrate Application

<table>
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<th>Media Type</th>
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<tr>
<td>Most Litho Printed Coated Papers</td>
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<tr>
<td>Coated Paper and Board Stocks</td>
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<td>Coated Display Board</td>
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Thinning
It is essential to thoroughly stir the ink before use. Properly stirring the ink for three to five minutes using a high-speed agitation device is recommended. Litho Clear is designed to be press ready.

Mesh and Squeegee
Litho Clear is recommended to be used with 355 to 460 count mesh made with low elongation monofilament polyester (140 to 185/cm). The ideal squeegee durometers are from 70 to 85 and resistant to UV inks.

Stencils
Stencil materials must be solvent resistant and produce a thin film stencil (3-6 microns over mesh). Dirasol 911, 914, SuperCoat 915, 916, 917, AST 210 and 220 dual cure, or Dirasol 132 one pot direct emulsions are recommended to give the highest print quality and stencil durability.

Adhesion Test
Cross hatch tape adhesion should be at least 80% immediately out of the reactor/cure unit with final adhesion developing in one to four hours. If total cure on a given substrate with a specific colors needs to be established, the piece should be passed through the reactor one or two times. this usually will promote final adhesion.

Curing
Ultraviolet cure (UV) inks are dependent on a high dosage of ultraviolet light to initiate cure, the process that converts the ink from a wet to a dry film. The light must, in effect, see through or penetrate the layer of ink to achieve proper cure.

In a curing unit containing one 200-Watt/inch (80-Watt/cm) lamp, cure speeds of 70 to 80 feet (21 to 24m) per minute are common for Litho Clear. Cure speeds are dependent on colors, film thickness, opacity and condition of the curing unit.

It is recommended that the energy output of the cure units be measured using a radiometer or similar equipment (170 to 190 mj/cm²).

If under-cure is experienced, demonstrated through a wet film or loss of gloss, it is usually due to excessive ink deposit. To correct this, the mechanics, such as mesh, squeegee, color density, machine speed, or the amount of UV energy should be changed.

Wash Up
Wash up on press with Xtend™ press washes and after the production run with Xtend™ ink degradents.

Pre-Production Tests
It is strongly recommended that all substrates be tested before use as supposedly similar substrates can vary between manufacturers and even between different batches from the same manufacturer. It is essential that offset inks are fully dried prior to applying Litho Clear to ensure adhesion. Offset inks should be wax free and formulated using pigments compatible with litho clears to prevent discoloration or bleed.

END-USER MUST DETERMINE SUITABILITY OF THIS PRODUCT FOR THE INTENDED USE PRIOR TO PRODUCTION.

Coverage
Litho Clear should yield coverage of 2800 to 3500 square feet/gallon (64 to 80 m²/liter) depending on film thickness.
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Co-Use with Other Inks
It is not recommended that Litho Clear be intermixed with any other UV or solvent-based ink system.

Clears
UVG-1002 Uvigloss Litho Clear
Available in 1, 5, and 55 gallon containers
LC-5422 Litho Clear
Available in 1 and 5 gallon containers

Storage
Containers should be tightly closed immediately after use. At the end of long printing runs, surplus ink from the screen should be disposed of. Refer to Material Safety Data Sheet (MSDS) for materials and conditions to be avoided.

In the interest of maximum shelf life, storage temperatures should be between 50°F (10°C) and 77°F (25°C). When stored under these conditions the maximum shelf life is shown by the use by dates, which are clearly marked on all ink containers.

Safety and Handling
Refer to MSDS for safety, handling, waste disposal and regulatory information.

The information and recommendations contained in this Technical Data Sheet, as well as technical advice otherwise given by representatives of our Company, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason our products are sold without warranty and on condition that users shall make their own tests to satisfy themselves that they will meet fully their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Technical Data Sheet out of date and users are requested to ensure that they follow current recommendations.

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