Main characteristics
UVG is a ready to use, high gloss UV ink specially designed for glass bottles and flat panels made by glass.

Substrates
UVG is mainly for glass or hard surface panels and boards.

Printing application
UVG is a ready to use for rigid engineering plastics like ABS, PS and PC. For glass substrate, 4% of Hardener SH0087 need to be added. For dark color substrates adding 10 to 20% of base 095 will be helpful for a better curing.

Intercoat Adhesion
For optimum adherence the colors should be printed inline. If not, do not allow more than 24 hours between each coat. Pay attention to the storage conditions: no dust remains between the 2 ink layers. The addition of some hardener, cure promoter or anti scratch agent will damage Intercoat adhesion properties of the ink.

Background color
Many glass panels especially glass bottles have a background color printed by screen or curtain coated as the last layer of decoration. Those products have different chemical nature and composition. Therefore it is necessary to run exhaustive test before full scale production to confirm adhesion properties of the background color on top of the UV ink. In any case, a complete cure of the UV ink is required to ensure optimum results.

Thinning
UVG is ready to use. Nevertheless, its viscosity can be adjusted by adding diluent D.

Drying
Standard curing conditions are: one 120 watts / cm (300 watts / inch) lamp, or two 80 watts / cm (200 watts / inch) lamps. UVG series can cure up to 20 meters / min under standard conditions.
For UVG opaque colors, it is better to cure at 5-8 meters / min.

Storage
Concerning standard UVG inks, undiluted in their original container, we guarantee a shelf life of one year. For special color matches, the warranty will be considered from the blending date. The above guarantee is applicable to inks stored in a dry, dark well-aired environment between 10 - 30°C (50 - 86°F).

Screen
Low elongation, monofilament polyester meshes are best used with this series. A mesh count of 300 to 420 threads per inch (120 - 165 threads per cm). Tension should range from 18 to 25 Newton/cm on a rigid metallic frame.

Resistances
UVG series will pass tape test on most substrates it is designed for. It offers a high resistance to acid and solvents.
In most cases, the water resistance of UVG is excellent. However, it can be improved by adding the hardener SH0087 from 2 to 5%.
Cleaning
Encres Dubuit's Solvent H (SH0084,) or Eco N (SH0085) are effective for cleaning screens used with most UV inks.

Squeegee
A medium 75 shore durometer polyurethane squeegee is preferred. Inks can be printed with hardness ranging from 60 to 90, depending on the final ink deposit to achieve. In some cases, V shape squeegee will sometimes improve fine letters printing results.

Standards and legislation
The standard UVG inks are supplied in the ECO system colors and conform to CE RoHS directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment. (Pb, Hg, Cr (VI), Cd, PBB, PBDE).

We also guarantee there are no voluntary additions of heavy metals during the production process.

Additives
Hardener SH0087
Proportion: 2-5%.
Broadly used to increase water resistance and reduce ink sensitivity to humidity, this hardener also acts as an adhesion promoter on difficult substrates (i.e. poor treatment or pearlised substrates). Mix inks fresh daily, and stir immediately and thoroughly. Maximum effect of hardener on adhesion and water resistance will be reached 24 hours after curing. Pot life of the ink will be reduced by adding SH0087.

Thixo powder SH0004
Proportion: 0.5% to 3% maximum.
Increases ink thixotropy for fine letters printing. Surface’s glossiness will be affected when adding more than 1%.

Cure Promoter SH0005
Proportion: 1% to 3% maximum
Improves speed of cure. Very useful when printing thick ink deposit or large block areas. The ink surface hardness will be increased, and glossiness will improve if curing conditions and production speed remain unchanged. The use of SH0005 may affect Intercoat adhesion, depending on printing conditions and ink series. Monitor carefully curing and adhesion throughout the production run.

Leveling agent SH0016
Proportion: 0.5% to 1% maximum
This additive will eliminate bubbles, pinholes, and will help reaching a smooth surface aspect.

COLORS

700 ECO SYSTEM COLORS

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<th>Description</th>
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<td>MANDARIN</td>
<td>730</td>
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<tr>
<td>VERMILION</td>
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<td>DARK RED</td>
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<tr>
<td>BRIGHT RED</td>
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<td>PINK</td>
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<td>VIOLET</td>
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<td>PRIMARY BLUE</td>
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<tr>
<td>EMERALD GREEN</td>
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<table>
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</table>

Dubuit guarantee the quality of our products. We cannot however guarantee the finished results because we exercise no control over an individual operating procedures. Our responsibility is limited solely to the exchange of ink or varnish. The quality of a substrate to be printed can vary, as can an ink being overprinted; therefore the above information is given in good faith based on the state of our art and prior experience. This statement also applies to our technical assistance. When using our inks and varnishes on a new substrate or when changing operating procedures, we strongly recommend testing before use in a production situation to ensure full compatibility. Please refer to our General Conditions of Sales.

Page 2 / 2