Arrowstar® Hard Surface Ink Series

Designed for printing on the widest range of non-porous substrates

Arrowstar Hard Surface inks are designed for printing on the widest range of non-porous substrates. These inks are formulated from a state of the art resin system and a combination of renewable vegetable oils which together provide excellent drying and film forming characteristics. Arrowstar Hard Surface inks are environmentally responsible and exhibit extremely low VOC levels (<5%).

**Product Features**

- Excellent lithographic performance
- Complemented by a full mono-pigmented blending range, which also contains light-fast and permanent variants
- Environmentally responsible and exhibit extremely low VOC levels

**Advantages of Arrowstar® Hard Surface**

- Low VOCs
- Fast oxidative drying
- Excellent adhesion properties
- Vegetable oil based
- Superior ink and water balance
Arrowstar® Hard Surface Ink Series

Arrowstar™ Hard Surface Process Colors

<table>
<thead>
<tr>
<th>Color</th>
<th>Light fastness</th>
<th>100% Strength*</th>
<th>100% Strength</th>
<th>Alcohol*</th>
<th>Alcohol*</th>
<th>Nitro (solvents)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>8</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Cyan</td>
<td>8</td>
<td>7-8</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Magenta</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>3-4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Yellow</td>
<td>5</td>
<td>4-5</td>
<td>5</td>
<td>3-4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Color properties comply with ISO 2846-1
(*Blue Wool scale, 1=minimum, 8=maximum)
(**Resistance properties in accordance with the Grey scale according to ISO 105-A03 or ISO 105-A02 1 = poor, 5 = very good)

Blending base series available

Substrates

Ideally suited for use in conjunction with a wide range of non-porous substrates*: Lenticular, Poly-art, In-mold label, Label lyte, Polypropylene, Styrene, PVC and numerous metalized

Printability

When printing on non porous substrates the following recommendations should be observed:

- Minimum dampening to reduce the chances of over emulsification and the effects that may have on the ink drying.
- Care should be taken to ensure the ink does not skin in the ink fount or on the roller train over prolonged periods. The minimal use of an approved anti-skin spray is permitted during long press runs.
- Where permitted, use of alcohol in the fountain solution may be advantageous to ink drying.
- If all of the inks are not printed in-line, the time between overprinting additional colors should be minimized to avoid trapping issues.
- Printing low lifts (low piles) and the use of an appropriate spray powder is recommended.

Remarks

*In order to eliminate the chances of adverse interactions between ink and substrate, it is always recommended that ink drying is evaluated on the respective substrate prior to a production run. All substrates should have a minimum surface energy of 38 dynes /cm².

Arrowstar Hard Surface inks comply with DIN ISO 2846-1 as required for printing to ISO 12647. They are also formulated in accordance with CEPE "Guide to Materials and Substances for Exclusion from Printing inks and Related Products"; EC Directive 94/62/EC - Packaging Directive in respect of Heavy Metal Content

Additives

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