DuPont™ Cyrel® HIQS
HIGH DUROMETER ANALOGUE PRINTING PLATE

DuPont Packaging Graphics

To help our customers gain competitive advantage in the global packaging graphics value chain.

DuPont Packaging Graphics continues to be a global technology leader in supplying flexographic printing systems. Our scientists continue to develop unique solutions based on new technologies to help our customers expand their business by taking advantage of new profitable packaging printing opportunities. DuPont Packaging Graphics portfolio of products includes Cyrel® brand photopolymer plates (analogue and digital), Cyrel® platemaking equipment, Cyrel® round sleeves, Cyrel® plate mounting systems and the revolutionary Cyrel® FAST thermal system.

Cyrel® HIQS is DuPont’s analogue high durometer printing plate for modern high precision presses. Even at the finest screen rulings, it combines the lowest dot gain with high ink transfer for smooth solids. Cyrel® HIQS provides long press-life when printing with flexible film as well as smooth paper surfaces.

Applications
Cyrel® HIQS is ideal for using modern press technology with thin plates and striving for the highest halftone resolution on film and paper.
• Flexible packaging
• Tag & Label
• Folding cartons
• Beverage cartons

Product Features
• High resolution – holds dots below 1% in screen rulings of 54 l/cm and finer
• Even under changing conditions such as temperature and humidity, Cyrel® HIQS offers a very consistent plate making performance
• Fits well with plate making techniques like FlexoCal®
• High resistance to ozone and white light results in excellent storage capability
• Prints any printing elements with high fidelity
• Requires minimum impressions settings, leading to long press-life
• Proprietary surface technology prints smooth solids
• Low surface tack makes handling easy

Printing ink and solvent compatibility
Cyrel® HIQS offers excellent compatibility with solvent-based, water-based inks and also with many UV inks.

Process of use
Expose the plate through the back to establish the floor and maximize sensitivity. Back exposure varies according to relief required. Remove the protective coversheet and expose the front of the plate. Process the plate in the Cyrel® plate processor. Finish the plate in a light finisher to eliminate surface tackiness. Post-expose the plate to ensure complete polymerisation.
Mounting
Cyrel® Microflex mounting devices are recommended for mounting Cyrel® HIQS plates. The double sided adhesive should first be applied to the cylinder or sleeve – not the plate – to ensure easier and precise laydown. The polyester base will maintain accurate register even with large plates.

Storage – Raw Material
Store unexposed plates in a cool area (4-32°C), away from direct sources of heat. Humidity control is not required. Cyrel® HIQS is foam interleaved to provide maximum protection of the plate after manufacture, and during transportation and storage. Plates should be stacked flat. Plates should not be exposed to direct sunlight or excessive white light. Continuous exposure to very high ozone concentrations should be avoided.

Handling – Raw Material
Cyrel® HIQS plates should be handled under UV free light; e.g. fluorescent tubes covered with amber sleeves.

Storage – Finished Plates
After printing, plates should be thoroughly cleaned with compatible solvent before storing. They may be stored on cylinders, sleeves or demounted and stored flat.

Technical Data

<table>
<thead>
<tr>
<th></th>
<th>Cyrel® HIQS 30</th>
<th>Cyrel® HIQS 45</th>
<th>Cyrel® HIQS 67</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>0.76 mm/ 0.030 inch</td>
<td>1.14 mm/ 0.045 inch</td>
<td>1.70 mm/ 0.067 inch</td>
</tr>
<tr>
<td>Durometer</td>
<td>85 Sh A</td>
<td>76 Sh A</td>
<td>70 Sh A</td>
</tr>
<tr>
<td>Image Reproduction</td>
<td>2 – 95%</td>
<td>2 – 95%</td>
<td>2 – 95%</td>
</tr>
<tr>
<td></td>
<td>54 L/cm</td>
<td>54 L/cm</td>
<td>54 L/cm</td>
</tr>
<tr>
<td>Minimum positive line width</td>
<td>0.10 mm/ 4 mil</td>
<td>0.10 mm/ 4 mil</td>
<td>0.10 mm/ 4 mil</td>
</tr>
<tr>
<td>Minimum isolated dot size</td>
<td>200 μm</td>
<td>200 μm</td>
<td>200 μm</td>
</tr>
<tr>
<td>Relief Depth</td>
<td>0.60 mm/ 0.024 inch</td>
<td>0.60 mm/ 0.024 inch</td>
<td>0.70 mm/ 0.028 inch</td>
</tr>
</tbody>
</table>

All technical information set out herein is provided free of charge and is based on technical data, which DuPont believes to be reliable. It is intended for use by persons having skill, at their own discretion and risk. The handling precaution information contained herein is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Since conditions of product use are outside of our control we make no warranties express or implied in relation thereto and therefore cannot accept any liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe any patents.

Du Pont de Nemours (Deutschland) GmbH
DuPont Imaging Technologies
Hugenottenallee 173
63263 Neu-Isenburg
Deutschland
Tel: +49 (0) 6102 18 3324

Du Pont (U.K.) Limited
DuPont Imaging Technologies
Wedgwood Way, Stevenage
Hertfordshire SG1 4QN
United Kingdom
Tel: +44 (0) 1438 734485

To learn more, visit www.packaging-graphics.dupont.com
or contact your Cyrel® specialist