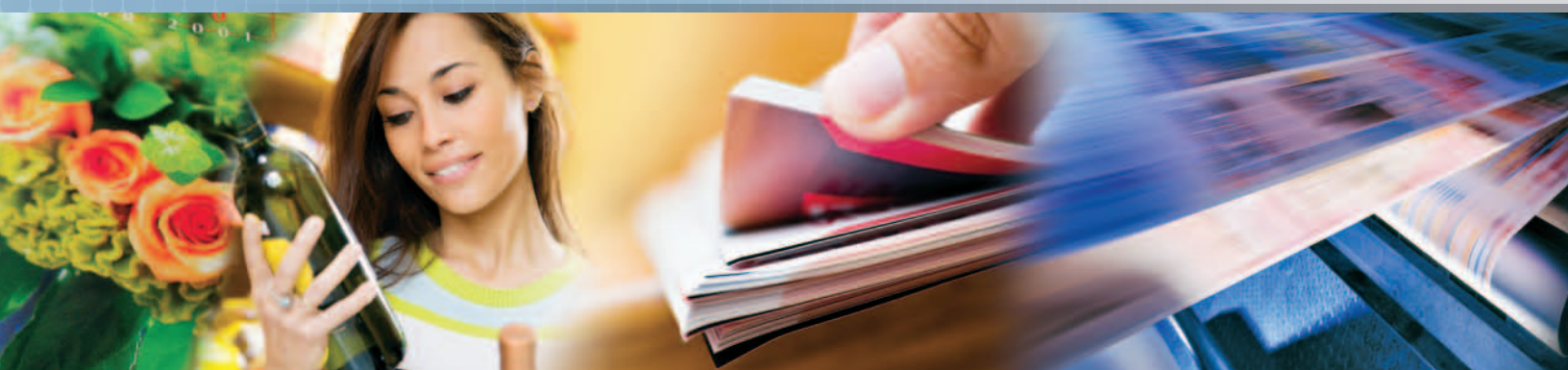


www.michelman.com

MICHELMAN[®]
YOUR COMPETITIVE EDGE.[®]



PRIMERS FOR HP INDIGO PRESS OWNERS

The outstanding quality and versatility of HP Indigo digital printing begins with optimized media. Michelman offers a full range of print receptive primers that enable Indigo customers to take full advantage of the widest range of substrates possible while achieving unparalleled ink transfer and adhesion.

PRINT RECEPTIVE PRIMER PRODUCT RANGE FOR HP INDIGO PRESS OWNERS

Product	Features	
DigiPrime® 4431	<ul style="list-style-type: none"> Patented technology Flexo and gravure ready 	<ul style="list-style-type: none"> Direct food contact** Excellent adhesion to most films and papers
DigiPrime 6029	<ul style="list-style-type: none"> Patent Pending Flexo and gravure ready 	<ul style="list-style-type: none"> For heavily textured paper label stock Excellent adhesion to PE label stock
DigiPrime 5000	<ul style="list-style-type: none"> Flexo and gravure ready 	<ul style="list-style-type: none"> For treated synthetics and soft vinyls
DigiPrime 4450	<ul style="list-style-type: none"> For two-sided printability Flexo and gravure ready 	<ul style="list-style-type: none"> For most films and papers Direct food contact**
DigiPrime 2000	<ul style="list-style-type: none"> For uncoated and coated paper grades Flexo and gravure ready 	<ul style="list-style-type: none"> Direct food contact**
Sapphire Priming Solution	<ul style="list-style-type: none"> For paper on commercial applications 	
Topaz 17	<ul style="list-style-type: none"> For untreated plastic sheets Suitable for screen printed application 	<ul style="list-style-type: none"> Solvented product
Q4304A	<ul style="list-style-type: none"> In-line primer for coated substrates on w3250 presses 	
Q4305A	<ul style="list-style-type: none"> In-line primer for uncoated substrates on w3250 presses 	
Q4324A	<ul style="list-style-type: none"> In-line primer for coated substrates on w7200 presses 	
Q4325A	<ul style="list-style-type: none"> In-line primer for uncoated substrates on w7200 presses 	

Table 1

*Indicator Solutions are available for all primers to verify the presence of the primer on the substrate.

**please refer to Technical Data Sheet for complete details.

As with any technology driven industry, the digital printing market evolves quickly. HP Indigo users are seeing a steady stream of new presses and new application techniques on a wider variety of substrates. Michelman's primer range has evolved to be at the vanguard of these changes, making it easier for you to take full advantage of the new capabilities offered by the Indigo presses.

DigiPrime products are used extensively for the demanding industrial press applications where their excellent adhesion to a wide variety of substrates and the HP Indigo ElectroInks® offer versatility and security in a broad range of applications from label printing to printing on flexible packaging. Use DigiPrime and you can rest assured that what you put down in print, ends up looking exactly as you intended.



RECOMMENDED DIGIPRIME APPLIED COAT WEIGHT GUIDES (FLEXO APPLICATION)

<i>Substrate</i>	<i>DigiPrime</i>	<i>Target Weight</i>	<i>Anilox lines/inch</i>	<i>Anilox lines/cm</i>	<i>Cell Volume bcm</i>	<i>Cell Volume cc/m²</i>
<i>Unsupported Films</i>	4431	1.0 gsm	400 lpi	160 l/cm	3.9 bcm	6 cc/m ²
<i>PP Label stock</i>	4431	1.0 gsm	400 lpi	160 l/cm	3.9 bcm	6 cc/m ²
<i>PE Label stock</i>	6029	1.0 gsm	400 lpi	160 l/cm	3.9 bcm	6 cc/m ²
<i>Uncoated Papers</i>	4431	1.5 gsm	300 lpi	118 l/cm	5.8 bcm	9 cc/m ²
<i>Clay coated papers</i>	4431	1.0-1.5 gsm	300 lpi	118 l/cm	3.9 bcm	6 cc/m ²
<i>Textured paper label stock</i>	6029	1.5-2.0 gsm	300 lpi	118 l/cm	5.8 bcm	9 cc/m ²
<i>Vinyls</i>	5000	1.8 gsm	300 lpi	118 l/cm	5.8 bcm	9 cc/m ²

Table 2

For applications involving direct food contact on a wide variety of substrates, DigiPrime 4431 is the recommended product. For applications involving two-sided printing for both food and non-food contact applications, DigiPrime 4450 is recommended. For printing heavy textured paper wine labels on the ws6000 series presses, the extensively tested and approved DigiPrime 6029 offers the best performance. Initial recommendations for applied coat weights based on flexo application for the DigiPrime range are shown in Table 2. In common with most water-based coatings, it is necessary to have a corona treatment prior to application to a polymer substrate to allow good wet-out and adhesion.



The DigiPrime range of products offer

- Operator and environmentally friendly water-based chemistry
- Excellent storage stability with no shelf life or aging issues
- Remain clear and show no discoloration with time
- Enable excellent adhesion of ElectroInks to the substrate
- Available in food contact versions
- Long blanket life and less down time for the presses

The Sapphire Priming solution is a treatment used for optimizing papers for the HP Indigo commercial presses such as the 5000 and 7000 series presses. The treatment is based on the application of a water-soluble polymer. For this reason it's important that substrates treated with Sapphire and not intended for immediate printing are stored in a vapor barrier wrapping paper and away from light. With this type of storage, a maximum shelf life of 6 months can be expected before printing.

Topaz 17 is a product designed for optimizing plastic sheet materials, typically PVC sheets for card production. It is a solvent-based product so the necessary precautions for using this material must be followed. Please see the TDS and MSDS for more detail. Being a solvent-based product, this coating can be applied directly to the substrate without the need for corona or other pre-treatment making it especially useful for priming sheeted material.

For some specialized roll-fed HP Indigo Commercial printers with an in-line priming (ILP) capability, special primers are required. Michelman offers the w3250 and W7200 Indigo press owners with ILP suitable primers for use on coated and uncoated papers. Please refer to Table 1 for specific recommendations.

In addition to primers, Michelman also offers varnishes for protection and enhancement of the printed image. Please see our DigiGuard® brochure for further details.

Worldwide Headquarters

Michelman, Inc.
9080 Shell Road
Cincinnati, Ohio
45236-1299 USA
Tel: +1 513 793 7766
Fax: +1 513 793 2504

Europe

Michelman SARL
89D Rue Pafebruch
L-8308 Capellen
Grand-Duché de Luxembourg
Tel: +352 26 39 44 1
Fax: +352 26 39 44 80

Asia-Pacific

Michelman Asia-Pacific Pte. Ltd.
2A Tuas Avenue 12
Singapore 639023
Tel: +65 6861 2822
Fax: +65 6861 2262

Michelman Asia, Inc.
Shanghai Representative Office
Office 3042, Central Place
No. 16 Henan Road South
Shanghai, China 200002
Tel: +86 21 6120 4404
Fax: +86 21 6374 3778



Printed on an HP Indigo Press

The facts stated and the recommendations contained herein are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made because we cannot cover every possible application for our products nor anticipate every variation encountered in manufacturing equipment and methods. For the same reason, the products discussed are sold without warranty, express or implied and on the condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes. Seller shall not be liable for any injury, loss or damage, direct or consequential arising out of the use of or the inability to use the product. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent and our products are sold without warranty of non-infringement. Michelman is ISO certified. © 2010 Michelman. All rights reserved. Printed in U.S.A. © Reg. U.S. Pat. & TM Off. FP11-10R1