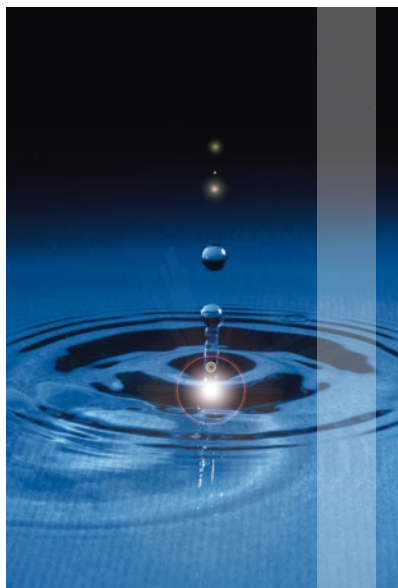


## GUIDELINES FOR USING DIGIPRIME® 4431



DigiPrime 4431 is a water-based product designed for flexographic application. In its liquid form it is very stable, with a shelf life of 12 months if stored unopened at moderate temperatures. DigiPrime 4431 is capable of optimizing a wide variety of substrates including most films and papers.

Following application and drying, DigiPrime 4431 coated substrates have excellent shelf life - in excess of a year. They will not yellow or show degradation of print quality or adhesion.

### SUBSTRATE SELECTION GUIDE

Substrates	Comments
<ul style="list-style-type: none"> <li>• Papers : uncoated, matte, semi-gloss, cast-coated</li> <li>• Films: wide variety</li> </ul>	Films must have surface energy of 40 dynes/cm or more. Refresh corona is recommended.



### Storage of liquid DigiPrime 4431

DigiPrime 4431 must be protected from freezing. If frozen it is possible that grits or gels may be found in the product, and it should not be used. Please store containers of the product above 5 °C.

### Dilution

DigiPrime 4431 is supplied press-ready. If required, it can be diluted with deionised or soft water. Dilution changes the viscosity and solids content of the product, which changes the applied coat weights and therefore, the performance of the coated substrate. We do not recommend adding more than 20% by weight of deionised water.

### Application

Before application, clean the coating system thoroughly. Flush the supply lines and pumps with clean water. Then clean out the coater pans, and clean off the rollers. DigiPrime 4431 is not compatible with many solvents and can react with them to become very viscous.

### Cleaning

DigiPrime 4431 must not be allowed to dry on the anilox. Keep the coater moving, keep the rolls turning, and keep the surfaces wet. Use water to wash up. Cleaners from the following suppliers can also be recommended.

Flexoclean Engineering B.V.  
Blik 8  
4940 AJ Raamsdonksveer  
The Netherlands  
Tel: +31 (0) 162 576222  
Fax: +31 (0) 162 576220  
E-mail: [info@flexoclean.nl](mailto:info@flexoclean.nl)  
URL: [www.flexoclean.nl](http://www.flexoclean.nl)

Danko Industries  
181 Wolf Street  
Unit C  
Yorkville, IL 60560  
USA  
Tel: +1 630 882 6070  
E-mail: [ernie@dankoindustries.com](mailto:ernie@dankoindustries.com)

## Coat weight

On most surfaces a target coating weight of 1-1.5 gsm wet is recommended; however, if the surface is absorbent and/or textured, higher coat weights may be needed. This must be established by experimentation. Excessive coat weight may result in blocking in the wound roll. Typical anilox specifications and target coat weights are listed in the table below.

Substrate	Target wet gsm	Anilox lines/inch	Anilox lines/cm	Cell volume bcm	Cell volume cc/m2
Films	1.0	400	160	3.9	6
Uncoated Papers	1.5	300	118	5.8	9
Claycoated Papers	1.0-1.5	400-300	160-118	3.9-5.8	6-9

To achieve sufficient wet-out on films it is very important that the surface energy be above 40 dynes/cm. Refresh corona treatment is recommended to obtain optimum wet out and full adhesion.

## Drying

A minimum web temperature of 60 °C is recommended during drying to obtain full adhesion of the coating to the substrate. Be sure to cool the web down to less than 40 °C before winding or blocking in the wound roll occurs.

## Checking the applied coat weight

It is recommended to monitor your use of DigiPrime 4431 over a known length and width of media.

Coat weight (gsm) x Length (m) x Width (m) = Consumption of DigiPrime (g)

Example: 1 wet gsm DigiPrime x 1000m Long x 0.300m wide = 300 grams used

Gravimetric method: Checking coat weight on plain films can be achieved by measuring the weight difference. You will need an accurate balance, as the dry coat weight is very low.

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