

SHEETFED

Ultraking[®] 4600 LM PLAS PREMIUM

THE SERIES FOR FOOD PACKAGING PRINTING IN SHEETFED AND
WEB OFFSET FOR PAPER AND PLASTIC SUBSTRATES

Ultraking[®] 4600 LM PLAS PREMIUM

Ultraking[®] 4600 LM PLAS PREMIUM is a low-odour, low-migration process ink series for sheetfed and web offset packaging printing. It has been developed especially for food packaging applications where there is no direct contact between the printed image and the contents of the package.

Suitable Applications

- Plastic substrates, like polyethylene, polypropylene, polyester, and PVC
- Coated papers
- Uncoated papers

Ultraking[®] 4600 LM PLAS PREMIUM is particularly suited for the production of packaging that complies with the requirements of EU regulation 1935/2004 and 2023/2006 as well as with the Swiss Ordinance 817.023.21. The series also meets the requirements of the EuPIA Guideline "Printing inks applied to the non-food contact surface of food packaging materials and articles."

Attributes	Benefits
• Low-migration and low-odour	• Lowest level of extractables (properly cured ink film)
• Excellent adhesion properties	• Suitable for use on a wide range of non-porous substrates
• Fast curing speed	• Optimum curing at highest press speeds
• High colour strength	• Low dot gain
• Excellent ink/water stability	• Great press performance and stability
• Low misting	• Suitable for high speed web applications
• Good flow in the ink fountain	• Consistent colour density on long runs
• 100 % solid – no VOC emissions (cured ink film)	• Reduced VOC emissions required to report

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	Fastness Properties				
	Light Fastness	Alcohol	Solvent Mixture	Alkali	Soap
Ultraking® 4600 LM PLAS PREMIUM					
Ultraking® 4600 LM PLAS PREMIUM Process Yellow	5	+	+	+	+
Ultraking® 4600 LM PLAS PREMIUM Process Magenta	5	+	+	-	-
Ultraking® 4600 LM PLAS PREMIUM Process Cyan	8	+	+	+	+
Ultraking® 4600 LM PLAS PREMIUM Process Black	8	+	+	+	+

Fastness properties according to ISO 2836:
 + = Resistance provided
 - = Resistance not provided

Light fastness properties according to ISO 12040:
 from 1 (low) to 8 (high)

Substrates

Ideally suited for plastic substrates such as polyethylene, polypropylene, polyester and PVC. Well suited for coated and uncoated papers and board. Synthetic materials should be Corona-treated with a surface energy in excess of 38 dynes/cm² or with corresponding primer to achieve good adhesion. In general, the ink/foil combination should be tested. In view of the wide variety of substrates offered by various manufacturers and in order to check the suitability for the printing of food packaging, we recommend carrying out your own tests before starting a print run.

Additives / Varnish / Fount

Your Flint Group representative will help you select the optimal additives, varnish and fountain solution to preserve low-odour and low-migration properties.

Shelf Life and Storage

Proper storage conditions include keeping at room temperatures (60 °F to 80 °F) and minimizing exposure to light. Meeting the recommended storage conditions, Ultraking® 4600 LM PLAS PREMIUM will remain stable for a minimum of 18 months from the date of manufacture.

Special Notes

Ultraking® 4600 LM PLAS PREMIUM has extremely low-odour and low-migration characteristics. A migration test according to DIN EN 14338 has shown that, under the conditions of the test, no migration was observed.

A food packaging suitability certificate is available upon request.

In case the printing press was previously running with conventional inks, it should be thoroughly cleaned and all ink residues removed before printing with low-migration ink.

We recommend an accurate control of the polymerization process under the UV lamps.

For more details on Ultraking® 4600 LM PLAS PREMIUM, call your nearest Flint Group office or dealer.

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