PARAGON INKS

GLOBAL INK SPECIALISTS an ALDUS company

WATERBASED FLEXO 5000 RANGE

Introduction

The Waterbased 5000 range has been developed to provide inks that offer optimum press performance in conjunction with high colour strength, minimal odour, taint and lower migratable components in the dry film.

This pigmented ink range has the potential for use on indirect food packaging, on the condition that Food Packaging Compliance (FPC) can be demonstrated.

This is a premium product, manufactured using state of the art dispersion techniques and conforms to exacting quality standards.

For use on narrow and mid web flexo presses, having been developed for optimum performance on all flexo printing units equipped with hot air, IR or air knife drying. These inks are suitable for metering roll, chamber and bathed anilox inking systems.

The inks lend themselves to a wide range of applications including labels, direct thermal applications, sachets, tickets, tags and board applications.

Key Features	Advantages	Benefits
High Colour Strength	Ability to use less ink, finer aniloxes	Cost savings & widens portfolio of suitable work
Minimal Odour & Taint	Ability to print key primary & secondary food packaging material	Widens portfolio of suitable work
Optimised Viscosity and Flow	No foaming or spitting Minimal dot gain Excellent cell release Can be pumped	Runs well on press Sharper images and clearer highlights are possible Saves time
High Speed Drying	Press can run faster No set-off on rollers or print	Potential to save time and money Fewer quality rejections
Superior Adhesion	Use a wide range of materials	Flexibility in products you can convert
Press Stable	Environmentally friendly Inks stay open (no plate or anilox ink drying issues)	Healthy working environment Fewer wash ups - time savings
Quality Assured Consistency	Product is always of the same high quality	Time savings Less ink waste
Low maintenance	Minimal press side additions to the ink	Printer friendly and no wasted time
Excellent resistance to water and abrasion	Minimal stock holding Finishing varnish not often required	Increased portfolio of suitable work Potential for cost savings

Technical Information

Colour	Product Code	Light Fastness* (RL)	Alkali Resistance**	Soap Resistance**
4 Colour Process				
Process Yellow	WBYF5505	4	4	5
Process Magenta	WBRF5505	4	2	4
Process Blue	WBCF5501	7	5	5
Process Black	WBBF5507	7/8	5	5
Base Colour				
Yellow	WBYF5501	3	5	4
Orange 021	WBYF5504	3	4	5
Warm Red	WBRF5502	3	4/5	4
Red 032	WBRF5504	6	4	4
Rubine Red	WBRF5501	4	5	2
Rhodamine Red	WBRF5503	4	3	3
Purple	WBCF5503	4	3	1
Violet	WBVF5501	2/3	1	1
Reflex Blue	WBCF5502	2/3	1	1
Blue 072	WBCF5504	2/3	1	5
Green	WBGF5501	7/8	5	5
Opaque White	WBWF5504	7/8	5	5
Transparent White	WBTF5501	-	-	-
Spot Lightfast Colour				
LF Yellow 012	WBYF5506	6	5	4
LF Purple	WBCF5513	7	5	5
LF Violet	WBVF5511	7/8	5	5
LF Blue 072 C	WBCF5514	7/8	5	5
LF Reflex Blue C	WBC5512	7/8	5	5
LF Solid Black	WBBF5501	7/8	5	5

Notes on Fastness Table

All figures are based on the latest available information at the time of publication. Please note for inks containing more than one pigment the lowest fastness values are quoted.

For further information on light fastness see our Knowledge Base article on “The Lightfastness of Printing Ink”.

The above lightfastness figures are based on a 1-8 Blue Wool Scale for dry lightfast conditions only.

Weather fastness results are quoted for 100 hours exposure (approximately 1 month) on the following grey scale for weather fastness where 1* = colour disappeared. For outdoor applications that may be exposed to weathering please contact Paragon for recommendations prior to printing.

Grey Scale	**5**	**4/5**	**4**	**3/4**	**3**	**2**	**1**
Fastness	Very Good	Good	Adequate	Fair	Poor	Very Poor	Not Acceptable

Physical Data

Drying Types (Speeds/mpm)	Hot Air, IR, Air Knife (Up to 120mpm)	
Typical densities	Yellow 0.95 - 1.15 Magenta 1.35 - 1.45 Cyan 1.35 - 1.45 Black 1.60+	
Anilox volume recommendations (lpi/cm^3/m^2)	Process work	900-1200 lpi / 2-4 cm^3/m^2
	Line or Type	400-650 lpi / 4-6 cm^3/m^2
	Solids	250-550 lpi / 5-9 cm^3/m^2
	Backing White	100-200 lpi / 10-20 cm^3/m^2
	Metallics	100-200 lpi / 8-11 cm^3/m^2
	Lacquering	100-300 lpi / 6-11 cm^3/m^2

Suitability/performance:	**Excellent**	**Good**	**Testing advised**
Substrates:			
Machine coated paper	•		
Top coated synthetic substrates	•		•
Thermal active papers	•		
Foils			•
Combination Printing (UV Free Radical) :			
UV Letterpress		•	•
UV Flexo		•	•
UV Flexo / Duct Varnish	•		
UV Screen (silicone free)	•		•
Water Based Flexo	•		
Suitable overprint methods:			
Thermal transfer overprinting	•		•
Direct thermal	•		
Hot Foil			•
Laser overprinting			•

Substrates

This ink system has been purposely designed for use on the majority of papers, boards, synthetics and foils both supported and unsupported. The inks are press ready and the use of performance additives is not recommended without prior consultation or recommendation by Paragon Inks. This ink system is suitable for thermal active papers with or without the use of a suitable over varnish.

NB. Due to the wide variety of synthetic substrates available we cannot provide guarantees for ink adhesion. We recommend the use of good quality top coated substrates. Non-top coated substrates can also be converted providing the material is corona treated or primed prior to printing.

It is recommended that adequate testing be carried out prior to production runs.

Overprinting

All inks detailed in this information sheet are free from surfactants and are considered suitable for overprinting using thermal transfer ribbons, hot foils, flexo and screen inks. Please note that due to the wide variety of ribbons and foils which are available, we always recommend overprintability trials be conducted for suitability when using these products for the first time or if the print construction changes.

NOTE: Over printing with the use of CATIONIC UV products is not recommended and should be fully tested before use in production

Other Information

All products must be mixed/stirred thoroughly to ensure consistency prior to printing, failure to do so may alter the performance or finish of the ink.

Additional Instructions for Use

- Dilute according to printing conditions and desired product quality with WATER, maximum 10 %.
- If it is necessary to reduce the colour strength without compromising the consistency and mechanical hold of the ink, we recommend using WBTF5501 TRANSPRENT WHITE instead of water.
- To reduce foaming we suggest using our AD2521 Press Side Defoamer, maximum 1 %.
- To increase drying time add our AD2501 Retarder, use 3% to 5% *maximum

Storage and Shelf Life

All products detailed in this information sheet in a sealed container have a guaranteed shelf life of 12 months but storage conditions are imperative. The container should be closed immediately after use and stored in a dry area at a temperature environment (15-25˚C) away from direct sunlight. This guarantee only applies to sealed, unopened containers.

The information contained in this General Information sheet is based on the experience of Paragon Inks (Holdings) Limited and our internal laboratory test procedures. It is not to be interpreted as a warranty or guarantee in any form as conditions and variables beyond our control can affect the end result. We recommend press trials when using new substrates and other print related variables for suitability purposes. We reserve the right to alter any product data as a result of technical or manufacturing processes.

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