

### **UV FLEXO AURA+ RANGE**

#### Introduction

The UV Flexo AURA+ range is the next generation of inks developed to comply with the Swiss Ordinance and EuPIA guidelines for indirect food packaging. The AURA+ range is a dedicated indirect food contact ink range for converting Food Contact Materials (FCM).

The UV Flexo AURA+ range has been designed to unite the major requirements of press and print performance. Offering high colour strength, in combination with excellent fluidity, stability and quality, delivering a unique value for money range in today's and future markets.

The Pantone digital library is the foundation for the AURA+ range, giving a greater consistency and accuracy to the bespoke mixing guide, utilising the latest technologies that allows for a perfect platform for digital colour synergy and creation.

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

The UV Flexo AURA+ range has been developed for optimum performance on all types of flexo-printing units equipped with UV (MPM) drying.

The system lends itself to a wide range of indirect food contact applications where supported and unsupported stocks are used, such as SAL, IML, WARL, sachets, flexible packaging and carton sleeve packaging, offering complete heat stability.

Key Features	Advantages	Benefits
Swiss Ordinance and EuPIA Guidelines for indirect food packaging compliant	Lower migratables in the cured film	Widens portfolio of suitable work
High Colour Strength	Anilox and ink laydown flexibility	Cost savings and print optimisation
Based on the Pantone Digital Library	Colour accuracy and consistency	Cost savings and print optimisation
Minimal Odour	Ability to print primary indirect food contact material	Widens portfolio of suitable work
Low Viscosity & Fluidity	Improved print unit performance Optimised dot creation and clean print	Optimum up time and quality
Rapid Cure Response	Optimum press speeds- performance from 0 to maximum speed 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
Solvent Free	Environmentally friendly Inks stay open No lamp damage	Healthy working environment Fewer wash ups - time savings Fewer lamp replacements - cost savings
Surfactant Free	No foaming or aeration Overprintable	Optimum up time on press and savings
Press Ready	No press side additions to the ink	Printer friendly and no wasted time
High Gloss	Aesthetic lacquer often not required	Potential for cost savings
Paragon Inks Global Guarantee	Product is always of the same high quality	Optimum up time on press and savings

## **Technical Information**

## **Fastness and Product Resistance**

Colour	Code	Light Fastness	Steam Sterilisation	Alkali	Acid	Soap	Alcohol
Yellow	YFA-01	4-5	N/A	5	5	N/A	5
Orange	YFA-02	4-5	N/A	4	4	N/A	N/A
021 Orange	YFA-04	4-5	N/A	3	4	N/A	N/A
Warm Red	RFA-02	4-5	N/A	3	4	N/A	N/A
032 Red	RFA-04	4-5	N/A	3	5	N/A	3
Spot 032 Red	RFA-14	3	N/A	1	4-5	N/A	N/A
Rubine	RFA-01	4-5	N/A	4	2	2-3	3
Rhodamine	RFA-03	5-6	N/A	4	2	2-3	3
Pink	RFA-06	5-6	N/A	4	2	2-3	3
Purple	CFA-03	3	N/A	4-5	5	4-5	3-4
Violet	VFA-01	3	3	4-5	5	4-5	3-4
072 Blue	CFA-04	5	N/A	4-5	5	4-5	3
Reflex Blue	CFA-02	5-6	N/A	4	2	2-3	3
Dark Blue	CFA-06	4-5	N/A	4-5	5	4-5	3
Process Blue	CFA-01	6+	N/A	5	5	5	3
Green	GFA-01	6+	N/A	5	5	N/A	5
Intense Green	GFA-11	6+	N/A	5	5	5	5
Untoned Black	BFA-02	6+	N/A	4	2	2-3	3

# **Process Standard Range**

Colour	Code	Light Fastness	Steam Sterilisation	Alkali	Acid	Soap	Alcohol
Process Yellow	YFA-05	4	N/A	5	5	N/A	4-5
Process Magenta	RFA-05	4-5	N/A	4	2	2-3	3
Process Cyan	CFA-05	6+	N/A	5	5	5	3
Process Black	BFA-05	6+	N/A	4	2	2-3	3

# **Process Strong Range**

Colour	Code	Light Fastness	Steam Sterilisation	Alkali	Acid	Soap	Alcohol
Process Yellow	YFA-07	4	N/A	5	5	N/A	4-5
Process Magenta	RFA-07	4-5	N/A	4	2	2-3	3
Process Cyan	CFA-07	6+	N/A	5	5	5	3
Process Black	BFA-05	6+	N/A	4	2	2-3	3

# **Process Lite Range**

Colour	Code	Light Fastness	Steam Sterilisation	Alkali	Acid	Soap	Alcohol
Process Yellow	YFA-15	4	N/A	5	5	N/A	4-5
Process Magenta	RFA-15	4-5	N/A	4	2	2-3	3
Process Cyan	CFA-15	6+	N/A	5	5	5	3
Process Black	BFA-15	6+	N/A	4	2	2-3	3

#### 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.

<b>Grey Scale</b>	5	4-5	4	3-4	3	2	1
Fastness	Very Good	Good	Adequate	Fair	Poor	Very Poor	Not Acceptable

## **Physical Data**

Curing speed	> 100 m/min						
Curing type	Ultra Violet (free radical)						
Typical densities	Yellow 0.95 - 1.15	Magenta 1.35 - 1.45					
(Optimised process weights at 150 m/min)	Cyan 1.35 - 1.45	Black 1.40+					
Volume recommendations (cm <sup>3</sup> /m <sup>2</sup> )	Process work	2-4 cm <sup>3</sup> /m <sup>2</sup>					
	Line or Type	4-6 cm <sup>3</sup> /m <sup>2</sup>					
	Solids	5-7 cm <sup>3</sup> /m <sup>2</sup>					
Suitability/performance:	Excellent	Good	Testing advised				
Substrates:							
Machine coated paper	•						
Top coated synthetic substrates	•						
Thermal active papers (when over lacquered)**		•	•				
Foils	•						
Combination Printing:							
UV Letterpress	•						
UV Flexo	•						
UV Primoflo	•						
UV Flexo / Duct Varnish	•						
Water based Flexo			•				
UV Screen (silicone free)	•		•				
Suitable overprint methods:							
Thermal transfer overprinting	•		•				
Direct thermal (requires over lacquer)		•	•				
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 not suitable for thermal active papers without the use of a suitable over varnish.

\*\* Always test any thermal stock prior to use for UV suitability.

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, laser toners, flexo and screen inks. Please note that due to the wide variety of ribbons, foils and toners 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.

It is important that tests are carried out to ensure good results can be achieved when printing on press.

## **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.

### Storage and Shelf Life

All products detailed in this information sheet 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 5-18°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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