BRANCHER KINGSWOOD	Technical Data Sheet	Date : 29/09/17 V5

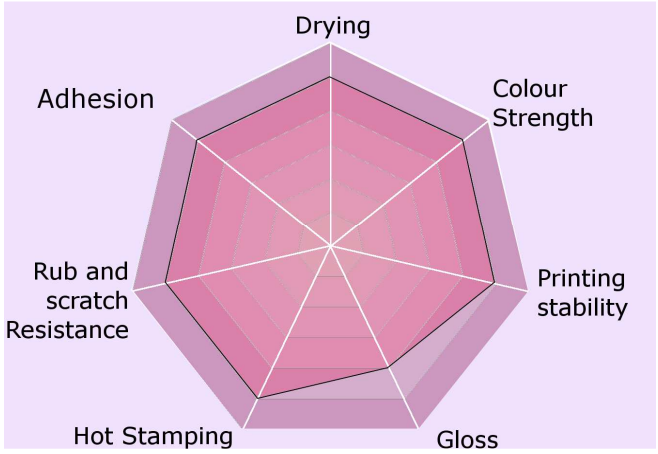
PEGASUS

UV Drying Flexo Inks – Suitable for most common substrates (see table)
Labels, films, tickets – Secondary packaging

Performances

- Good fluidity, rheology suitable for a good transfer
- Excellent stability at high speed
- Good adhesion on non-absorbent substrates
- High concentration, good gloss, smooth prints
- Suitable for hot stamping and lamination (see recommendations)
- Very good rub and scratch resistance
- Excellent cure speed

Ink profile



PEGASUS Process Colors

		Fastness		
		Light ISO 2835	Alcohol ISO 2837	Alkali ISO 2838
	Pegasus Process Yellow	5	+	+
	Pegasus Process Magenta	5	+	-
	Pegasus Process Cyan	8	+	+
	Pegasus Process Black	8	+	+

PEGASUS Series

		Fastness		
		Light ISO 2835	Alcohol ISO 2837	Alkali ISO 2838
	Pegasus P. Yellow	5	+	+
	Pegasus Yellow 012	5	+	+
	Pegasus Orange 021	5	+	+
	Pegasus Warm Red	3	+	-
	Pegasus Red 032	6	+	+
	Pegasus Rubine Red	5	+	-
	Pegasus Process Blue	8	+	+
	Pegasus Green	8	+	+
	Pegasus Mixing Black	8	+	+
	Pegasus Transp White	.	+	+
	Light Fast inks			
	Pegasus Warm Red LF	5	+	+
	Pegasus Rhodamine LF	7	+	+
	Pegasus Purple LF	7	+	+
	Pegasus Violet LF	7	+	+
	Pegasus Blue 072 LF	8	+	+
	Pegasus Reflex Blue LF	8	+	+
	Others products			
	Pegasus Intense Black	8	+	+
	Pegasus Opaque White	.	+	+
	Pegasus Reverse White	.	+	+

Substrates

Non coated	**	Metalized TC	*
Vellum paper	**	PE	**
Matt coated	***	PE TC	***
Gloss coated	***	PP	**
Chromo coated	***	PP TC	***
Thermal Eco paper	▲	BOPP	***
Thermal coated pap.	**	PVC	**

*** *Parfectly suitable*
** *Suitable*
* *Test necessary*
▲ *Prohibited*

Spot colour Inks

On request

Packing

5 kg UV Bucket with spout

Recommendations on substrates

- Curing speed of the ink may be reduced by too porous substrates and may cause phenomena of marbling: the very fluid ink is quickly absorbed by the substrate.
- The thermal Eco paper have no protective layer, the thermosensitive layer may react with certain materials of UV inks.
- To obtain a good adhesion, the surface energy of the substrate must be adequate. In the case of synthetic substrates, the required surface energy must be at least 38 dynes/cm².
- A « Corona » electric treatment allows the surface energy of a substrate to be modified and increased. The effectiveness of this treatment is limited over time : we recommend in-line “Corona” treatment.
- Synthetic substrates PE, PP, PVC without top coating contain lubricants that can migrate to the surface. This fact affects the adhesion and scratch resistance, even when the surface tension is correct.

Auxiliary products

UV additives	*Characteristics*	*Dose*
UV Thinner	Reduce viscosity	0 - 8 %
UV Adhesion promoter	Improve adhesion on difficult substrates (synthetic, metallic,…)	0 - 2 %
UV Slip Additive	Makes the prints slip. This additive is not suitable for stamping	0 - 1 %
UV Anti-static Additive	Polarizes the ink film to limit the phenomenom of electrostatic bonding which appears	0 - 2 %
UV Anti-foam Additive	Removes and reduces the formation of bubbles. It is important to homogenize the ink after the addition of this additive in order to prevent deformities on the printed film	0 - 2 %
Photoinitiator	Improves ink drying. Before adding Photoinitiator, check the condition and efficiency of the lamps (number of hours of use of the lamp) and the reflectors cleaning.	0 - 3 %

Use

- Anilox

	Process	**Pantone**	**Texts, Solid**	**White**
Line count anilox				
Lines / cm	480 – 250	210 – 160	210 – 120	160 – 100
Lines / pouce	*1220 – 700*	*500 – 400*	*500 – 300*	*400 - 250*
Cells size				
Volume (cm3/m²)	2,5 – 4,0	5,0 – 7,0	5,0 – 10,0	7,0 – 12,0
Volume (BCM)	*1,4 – 2,5*	*3,2 – 4,4*	*3,2 – 6,3*	*4,4 – 7,1*
Cells engraving angle				
Angle (°)	60	60	60	60
Corresponding transfer*				
Theorical weight of ink film (g/m²)	0,6 – 1,2	1,5 – 2,1	1,5 – 3,0	2,1 – 3,6

- In order to keep a regular ink thickness, the use of a doctor blade is recommended.
- The ink must be stirred before use to obtain an optimum fluidity.

* The diversity of existing anilox is so large, that the correspondances between line count, cell size and transfer are approximate. The depth, opening or the geometry of the cells may affect the transfer.

- UV Lamps

- A minimum power of 160 W/cm is recommended. A higher power will increase the printing speed.
- It is important to maintain regularly UV drying systems (reflectors cleanliness and number of hours of use of the lamps) to avoid losing power and thus drying efficiency.

Recommendations

- **Do not use for primary foodstuff packaging without functional barrier.**
- May be laminated and varnished (UV, nitrocellulose, acrylic).
- In the case of laser overprinting, it is recommended to print 50% half tones rather than solid print areas and also avoid use of Rhodamine and Purple that have very poor heat resistance.
- Opaque White, Gold, and Silver, or Fluo are not suitable for thermal overprinting. Indeed, these types of pigments may damage the printing heads.
- To obtain pastel shades, add maximum 15% of Opaque White and make up with Transparent White.
- Do not use Opaque White when printing on thermal paper.
- Opaque White can be printed on the front of the substrate, the first group and can be overprinted.
- Reverse White (Cello Email) is used on the last group for printing on the back of a sleeve over other inks. It provides a better rub and scratch resistance but is not suitable for overprinting or stamping."
- Do not use Reverse Opaque White as a mixing shade.
- Store the ink in its original, sealed container in a dark place at a temperature between 5 and 30°C. Use within 24 months.