

IPICURE FX 6500

UV Inks for Flexo Printing on Plastics and Paper

IPICURE FX 6560 is the new series for flexo printing on plastics and paper.

Suited for flexographic narrow web presses equipped with traditional UV curing units. Good flow properties allow to use this series with both open ink ducts or doctor blade chambered ducts

Available in the colour scheme all Process Set, Colour Bases (Pantone®) Opaque White and Spot colours on request.

Properties

We recommend the **IPICURE FX 6500** series for standard applications with the following properties:

- Formulated without intentional use of ITX, benzophenone, 4-methylbenzophenone as well as Bisphenol A
- Good adhesion on many different substrates
- High colour density
- Good chemical and mechanical resistances.
- Suitable for overvarnishing, laser printing, hotfoiling and coldfoil stamping (test is required)

Substrates

The **IPICURE FX 6500** series is mainly suitable for:

- Coated and uncoated papers
- Metallized papers
- Top-coated plastics substrates.
- Corona® in-line and pre-treated PE, PP, OPP.
- PVC

Considering the many different quality of plastic substrates available, please refer to the following table with suggested treatment levels (dynes/cm):

	<i>PE</i>	<i>PP</i>	<i>PVC</i>	<i>PET</i>	<i>PS</i>	<i>PVDC</i>	<i>PU</i>	<i>ABS</i>	<i>PTFE</i>	<i>Silic.</i>
<i>Min.</i>	42	40	36	44	42	42	38	42	38	38
<i>Max</i>	54	50	52	56	50	52	52	52	52	52

In case peculiar substrates or specific adhesion performance are required, we recommend that proper and specific tests were carried out before printing run.

Application

Printing Presses

The **IPICURE FX 6500** series is suitable for flexographic printing machines equipped with positive, negative and chambered Doctor Blades inks systems.

Recommended application parameters

Parameters	PROCESS	PANTONE ®	AREA
<i>ANILOX (Lines/cm)</i>	300-500	160-180	120-180
<i>ANILOX (Lines/inch)</i>	760-1270	400-460	300-460
<i>Pick-up volume (cm³/m²)</i>	2-4	5-6	5-10
<i>Angle</i>	60°	60°	60°
<i>Application rate (g/m²)</i>	0,6-1,4	1,6-2,0	1,6-3,0

Printing Plates

In general, this series is suitable for rubber and photopolymer plates. For printing with UV flexo inks, plates with about 70 Shore of hardness are recommended. For good quality printing and lasting printing performance of plates, specifically developed for UV inks plates are suggested.

UV Curing and printing speed

IPICURE FX 6500 series is suitable for medium and high-pressure UV systems:

Lamps power: **120-200 W/cm**.

Printing Speed: Up to **100 m/min**.

In general, the maximum printing speed, in order to obtain a consistent curing result, it is strongly related to many parameters such as:

- Set-up and power of UV lamps.
- Anilox rollers utilized.
- Applied inks quantity.
- Colour and density of the printed inks.

Considering the good mechanical resistance of the cured ink layers, on coated papers no varnish protection is required, however in case of special substrates or in more demanding applications, we recommend to use suitable UV varnish in order to provide higher protection for the printed substrates.

Please consider that highly absorbent stocks can significantly reduce the curing speed and the surface properties.

Color Gamut and Fastness Properties

Fastness: Light, Alcohol, Solvents e Alkali

IPIPURE FX 6500 *					
Process Set		Light Fastness	Alcohol	Nitro	Alkali
Yellow	6GI-6500-0000	5	+	+	+
Magenta	6RS-6500-0000	5	+	+	-
Cyan	6BL-6500-0000	8	+	+	+
Black	6NE-6500-0001	8	+	+	+
Process Colours LF		Light Fastness	Alcohol	Nitro	Alkali
Yellow LF	6GI-6500-0003	7	+	+	+
Magenta LF	6RS-6500-0103	7	+	+	+
Colori Base		Light Fastness	Alcohol	Nitro	Alkali
Yellow	6GI-6500-0002	5	+	+	+
Orange (021)	6AR-6500-0021	5	+	+	+
Orange LF	6AR-6500-0121	7	+	+	+
Warm Red LF	6RS-6500-0102	3	+	+	-
Y.Shade Red (032)	6RS-6500-0032	5	+	-	+
Rubine Red	6RS-6500-0003	5	+	+	-
Rhodamine Red LF	6RS-6500-0104	8	+	+	+
Purple LF	6PU-6500-0101	8	+	+	+
Violet LF	6VI-6500-0101	8	+	+	+
Reflex Blue LF	6BL-6500-0102	8	+	+	+
Blue	6BL-6500-0002	8	+	+	+
Green	6VE-6500-0001	8	+	+	+
Mixing Black	6NE-6500-0002	8	+	+	+
Transparent White	6TW-6500-0000	NA	NA	NA	NA
Opaque White	6BI-6500-0001	8	NA	NA	NA
		Light fastness based on standard ISO 12040: 1 (low) 8 (high)	Defined on standard ISO 2836: +: Resistance granted -: Resistance not granted		

*The assessment of the color properties was made under standardized printing conditions. In individual cases, under special conditions, as in printing with very high ink densities, the classification of certain properties may be different.

The statements listed on this technical information sheet are according to our best knowledge. The statements do not exonerate the user from their own responsibility to determine that our products are suitable for their processes. They are intended to inform and advise and are subject to influence from the technical process. This edition of January, 2023 replaces all previous editions. With the present edition all older editions are null and void.
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Printing Auxiliaries

The **IPICURE FX 6500** inks are ready to use products. In case small adjustments are needed for special requirements, please find the recommended additives and technical information on the table below:

IPICURE FX 6500 Press Room add.		Usage	Dosage
Thinner	6AD-6500-0000	Suggested usage to reduce viscosity of the inks during printing run	Up to 10%
Levelling Agent	6AD-6500-0003	Suggested usage to improve levelling and wettability of the inks during printing run	Up to 0,5%
Anti-foam	6AD-6500-0001	Suggested usage to reduce foam and micro-bubbles into the inks during printing run	Up to 0,2%
Catalyst	6AD-6500-0002	Suggested usage to enhance curing speed	Up to 5%

Shelf life

9 months from the production date if the container is not opened. Store between 5 - 35°C. Higher storage temperature may reduce shelf life. Protect from frost and sunlight. The cans need to be closed back immediately after usage.

Packaging

5 kg plastic bucket