

Novasens[®] P 650 SELECT

The low-migration and low-odour series

Special process inks for sheetfed offset

Product Features

- Novasens[®] P 650 SELECT is a low-odour and low-migration special process series which has been developed specially for sensitive food and semi-luxury food applications, where there is no direct contact between the printed image and the contents of the package.
- Further advantages of the series are very good printability and a high press stability.
- Due to its very high colour strength Novasens[®] P 650 SELECT allows printing with a very low ink film thickness, resulting in fast setting and brilliant performance in terms of inline-coating.
- Novasens[®] P 650 SELECT is ideally suited for straight-line printing on all multi-colour printing presses.
- Novasens[®] P 650 SELECT is particularly suited for the production of packaging that complies with the requirements of the EU-regulation 1935/2004 and 2023/2006 as well as with the Swiss Ordinance 817.023.21. Additionally, the series meets the requirements of the EuPIA Guideline "Printing Inks applied to the non-food contact surface of food packaging materials and articles". Mineral oil is not used as an intentional formulation component of this series. The release of aldehydes on neutral substrates is below the detection limit.

Advantages of Novasens[®] P 650 SELECT

- Low-migration and low-odour.
- The series complies with the requirements for printing inks for food packaging (according to EuPIA Guideline).
- Very high colour strength.
- Low swelling.
- Good performance in the stack.
- Suited for printing work corresponding to ISO 12647-2.
- Ideally suited for gloss coated papers and board.

Novasens® P 650 SELECT

	Fastness properties				Printing properties								
	Light fastness	Alcohol	Solvent mixture	Alkali	Dot gain	Gloss	Setting	Oxidative drying	Rub resistance	Rapid further processing	Suitability for gloss coated papers/board	Suitability for uncoated papers/board	Suitability for matt coated papers/board
Novasens® P 650 SELECT					6	4	4	-	*	*2	6	4	6
Novasens® 1 P 650 SELECT Yellow	5	+	+	+	1 = Characteristic weakly expressed 7 = Characteristic strongly expressed								
Novasens® 2 P 650 SELECT Magenta	5	+	+	-	The assessment of the colour properties was made under standardised printing conditions. In individual cases, under special conditions, as in printing with very high ink densities, the classification of certain properties may be different.								
Novasens® 4 P 650 SELECT Cyan	8	+	+	+									
Novasens® P 650 SELECT Black, fast	8	+	+	+									
	Light fastness properties according to ISO 12040: from 1 (low) to 8 (high)												
	Fastness properties according to ISO 2836: + = Resistance provided - = Resistance not provided												

Drying Properties

Drying by absorption.

Substrates

Ideally suited for gloss and matt coated papers and board in combination with inline water based coating.

Remarks

* As a low-odour and low migration ink Novasens® P 650 SELECT dries only by absorption. For this reason an inline water based coating is always necessary (Novaset® 4211/40 gloss coating or Novaset® 4400/40 matt coating). The nip volume of the anilox roller should not be less than 13 cm³. Suited for printing work corresponding to ISO 12647-2. The rub resistance is significantly influenced by the used dispersion varnish.

*2 The suitability for rapid further processing is influenced by the absorption properties of the substrate and the used water based varnish.

You are welcome to contact us for further information.

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Novasens® P 650 SELECT

Special notes

Novasens® P 650 SELECT is particularly suited for the production of packaging that complies with the requirements of the EU-regulation 1935/2004 and 2023/2006. Additionally the series meets the requirements of the EuPIA Guideline „Printing Inks applied to the non-food contact surface of food packaging materials and articles“.

As fountain solution we recommend Varn® AF 4000 for alcohol reduced respectively alcohol free printing.

Never add driers to the inks or fountain solution.

The Novasens P650 SELECT is suitable for use on a wide variety of substrates/cardboards. When printing the series on extremely critical substrates, the tack can be reduced by using appropriate printing aids. Only the Novasens® PREMIUM Reducer or the Novasens® PREMIUM Reduxpaste may be used for this.

We recommend testing the suitability of the substrate for the printing of food packaging.

In case the printing press was previously running with conventional inks, it should be thoroughly cleaned and all ink residues have to be removed before printing with low-migration inks. For this purpose, only washes suitable for low-migration printing should be used, taking into account the manufacturers recommendations for use. Flint Group recommend Varn® Non-VOC Wash or Varn® V60 Plus for this purpose. Following the wash cycle, thorough rinsing with clean water is essential.

Heating of printed packaging in the oven has to be carefully considered due to the potential appearance of temperature peaks. In contrast, microwave heating of packaging without acceptor laminate is non-critical. Generally the heating of packaging to temperatures exceeding 200 °C must be avoided.

Due to the drying characteristics of these inks the suitability for hot foil stamping should be tested before starting a print run.

Migration test

A migration test according to DIN EN 14338 is available.

Further information

For further information regarding sheetfed printing inks for food packaging please refer to our corresponding Technical Review.

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