

Novasens® P 660 PREMIUM

The low-migration and extremely low-odour series

Special process inks for sheetfed offset

Product Features

- Novasens® P 660 PREMIUM is an extremely 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 660 PREMIUM allows printing with a very thin ink film, resulting in fast setting and brilliant performance in terms of inline-coating.
- Novasens® P 660 PREMIUM is manufactured in a dedicated facility for production of sheetfed inks for food packaging printing.
- The series is ideally suited for straight-line printing on all multi-colour printing presses.
- Novasens® P 660 PREMIUM 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 660 PREMIUM

- Low-migration and extremely 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 660 PREMIUM

	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 660 PREMIUM					6	4	3	1	2	3	6	4	6
Novasens® 1 P 660 PREMIUM Yellow	5	+	+	+	1 = Characteristic weakly expressed 7 = Characteristic strongly expressed								
Novasens® 2 P 660 PREMIUM 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 660 PREMIUM Cyan	8	+	+	+									
Novasens® 660 PREMIUM 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 an extremely low-odour and low migration ink Novasens® P 660 PREMIUM 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.

You are welcome to contact us for further information.

The aim of our technical documents is to inform our customers about general values. However, the transferability of general values known from experience and laboratory results to concrete practical applications depends on a number of factors which are beyond our control. We therefore ask for your understanding that this advice document cannot be used as the basis for claims in law. Furthermore, the correct application for each product has to be checked carefully for suitability.

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Special notes

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As fountain solution we recommend Hydrofast AFS 359 Novasens for alcohol reduced respectively alcohol free printing.

Never add driers to the inks or fountain solution.

If there is a need for tack reduction, for example when printing on sensitive substrates, use only special Novasens PREMIUM Reducer or Novasens PREMIUM Reduxpaste.

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 recommends 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 was made under worst case conditions (320% ink coverage) on Invercote 180 g/m². The test revealed that the migration of substances fell below the 60ppm limit by a factor of more than 10. (Based on the EU convention whereupon 6 dm² packaging surface correlates with 1 kg food). A certificate is available upon request.

Further information

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

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