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# HKS® Colour System

Colour system consisting of 3 series for optimum colour fidelity and colour identity

## Base colour ink series for sheetfed offset

### Product features

- The HKS® colour system consists of the 3 spot colour ink series: Novavit® HKS® K BIO, Novavit® HKS® N BIO INTENSIVE and Novaform® HKS® E BIO. The series are ideally matched to the different types of substrate and therefore offer optimum colour fidelity, colour identity and maximum flexibility in regard of the substrate choice.
- All 3 series are based on renewable raw-materials and comprise 88 inks, including 9 base colours as well as 79 additional colour shades. The product properties and fields of application of the individual series are described in more detail on the following pages and the respective base colour inks are clarified.
- All HKS® inks can be obtained ready-to-print. With the exception of the base colours as well as Gold (HKS® 98) and Silver (HKS® 99) all other inks can also be mixed.
- As well as optimum colour fidelity and colour identity, excellent colour intensity, high brilliance and very good printability are additional strengths of the HKS® colour system.

### Advantages of the HKS® colour system

- 3 diverse series that are matched to different types of substrate.
- Optimum colour fidelity and colour identity.
- Maximum flexibility with regard to the substrate choice.
- Based on BIO binders.
- Duct-fresh.
- Excellent colour intensity and high brilliance.
- Very good printability.
- Additional colour shades in the HKS® 3000+ colour book.



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# HKS® Colour System

## Novavit® HKS® K BIO – for coated papers



	Colour Shade	Fastness properties/opaqueness					Printing properties								
		Opaueness	Light	Alcohol	Solvent mixture	Alkali	Dot gain	Gloss	Setting	Oxidative drying	Rub resistance	Rapid further processing	Suitability for gloss coated papers	Suitability for uncoated papers	Suitability for matt coated papers
<b>Novavit® HKS® K BIO Base Colour Inks</b>							6	5	5	5	5	5	7	*	6
Novavit® HKS 3 K BIO	Yellow	t	5	+	+	+	1 = Characteristic weakly expressed 7 = Characteristic strongly expressed								
Novavit® HKS 7 K BIO	Orange	t	5	+	+	+	<b>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.</b>								
Novavit® HKS 13 K BIO	Red	so	5	+	-	+									
Novavit® HKS 25 K BIO	Red	t	5	+	+	-	<b>Light fastness properties according to ISO 12040:</b> from 1 (low) to 8 (high)								
Novavit® HKS 27 K BIO	Rot	t	4	-	-	-	<b>Fastness properties according to ISO 2836:</b> + = Good Resistance - = Not Resistant								
Novavit® HKS 33 K BIO	Violet	t	4	-	-	-	<b>Opaueness:</b> o = opaque so = slightly opaque t = transparent								
Novavit® HKS 43 K BIO	Blue	t	4	-	-	-	*Deviating colour shade when printing on uncoated papers. For colour shade consistency please use the series Novavit® HKS® N BIO INTENSIVE.								
Novavit® HKS 47 K BIO	Blue	t	8	+	+	+									
Novavit® HKS 53 K BIO	Green	t	8	+	+	+									
Novavit® BCS BIO INTENSIV Transparent white	Colourless	t													
Novavit® 918 SUPREME BIO (correspond to HKS 88 K)	Black	o	8	+	+	+									

### Drying properties

Drying by oxidation and setting, duct-fresh.

### Substrates

Ideally suited for gloss coated papers.

The HKS® K colour book was matched on art paper Praxiprint 115 g/m<sup>2</sup>.

The ink film thickness: approx. 1.5 g/m<sup>2</sup>.

When printing on matt coated papers, under specific circumstances, a colour shade adaption may be necessary.

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# HKS® Colour System

## Novavit® HKS® N BIO INTENSIVE – for uncoated papers



	Colour Shade	Fastness properties/opaqueness					Printing properties							
		Opaueness	Light	Alcohol	Solvent mixture	Alkali	Dot gain	Setting	Oxidative drying	Rub resistance	Rapid further processing	Suitability for gloss coated papers	Suitability for uncoated papers	Suitability for matt coated papers
<b>Novavit® HKS® N BIO INTENSIVE Base Colour Inks</b>							6	5	5	5	5	*	7	*
Novavit® HKS 3 N BIO INTENSIVE	Yellow	t	5	+	+	+	1 = Characteristic weakly expressed 7 = Characteristic strongly expressed							
Novavit® HKS 207 N BIO INTENSIVE	Orange	t	5	+	+	+	<b>The assessment of the colour properties was made under standardised printing conditions.</b> <b>In individual cases, under special conditions, as in printing with very high ink densities, the classification of certain properties may be different.</b>							
Novavit® HKS 13 N BIO INTENSIVE	Red	so	5	+	-	+								
Novavit® HKS 25 N BIO INTENSIVE	Red	t	5	+	+	-	<b>Light fastness properties according to ISO 12040:</b> from 1 (low) to 8 (high)							
Novavit® HKS 27 N BIO INTENSIVE	Rot	t	4	-	-	-								
Novavit® HKS 33 N BIO INTENSIVE	Violet	t	4	-	-	-	<b>Fastness properties according to ISO 2836:</b> + = Good Resistance - = Not Resistant							
Novavit® HKS 243 N BIO INTENSIVE	Blue	t	4	-	-	-								
Novavit® HKS 47 N BIO INTENSIVE	Blue	t	8	+	+	+	<b>Opaueness:</b> o = opaque so = slightly opaque t = transparent							
Novavit® HKS 53 N BIO INTENSIVE	Green	t	8	+	+	+								
Novavit® BCS BIO INTENSIV Transparent white	Colourless	t					*Deviating colour shade when printing on coated papers. For colour shade consistency please use the series Novavit® HKS® K BIO.							
Novavit® 918 SUPREME BIO (correspond to HKS 88 N)	Black	o	8	+	+	+								

### Drying properties

Drying by oxidation and setting, duct-fresh.

### Substrates

Ideally suited for uncoated papers.

The HKS® N colour book was matched on uncoated paper 100 g/m<sup>2</sup>.  
The ink film thickness: approx. 2.0 g/m<sup>2</sup>.

### Further information:

Novavit® HKS® N BIO INTENSIVE is highly pigmented.  
For single printing two additional base colour inks are available:

Novavit® HKS® 7 N BIO INTENSIVE – Orange

Novavit® HKS® 43 N BIO INTENSIVE – Blue

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# HKS® Colour System

## Novaform® HKS® E BIO – for continuous forms



Novaform® HKS® E BIO Base Colour Inks	Colour Shade	Fastness properties/opaqueness					Printing properties							
		Opaueness	Light	Alcohol	Solvent mixture/Nitro	Alkali	Dot gain	Setting	Oxidative drying	Rub resistance	Rapid further processing	Suitability for gloss coated papers	Suitability for uncoated papers	Suitability for matt coated papers
Novaform® HKS 3 E BIO	Yellow	t	5	+	+	+	6	5	3	5	3	*	7	*
Novaform® HKS 207 E BIO	Orange	t	5	+	+	+	1 = Characteristic weakly expressed 7 = Characteristic strongly expressed							
Novaform® HKS 13 E BIO	Red	so	2-3	+	+/-	-	<b>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.</b>							
Novaform® HKS 25 E BIO	Red	t	5	+	+	-								
Novaform® HKS 27 E BIO	Rot	t	5	-	-	-	<b>Light fastness properties according to ISO 12040:</b> from 1 (low) to 8 (high)							
Novaform® HKS 33 E BIO	Violet	t	4	-	-	-	<b>Fastness properties according to ISO 2836:</b> + = Good Resistance - = Not Resistant							
Novaform® HKS 243 E BIO	Blue	t	4	-	-	-	<b>Opaueness:</b> o = opaque so = slightly opaque t = transparent							
Novaform® HKS 47 E BIO	Blue	t	8	+	+	+	* Deviating colour shade when printing on coated papers.							
Novaform® HKS 53 E BIO	Green	t	8	+	+	+								
Novavit® BCS BIO INTENSIV Transparent white	Colourless	t												
Novaform® 612 (correspond to HKS 88K)	Black	o	8	+	+	+								

### Drying properties

Drying by oxidation and setting, duct-fresh.

### Substrates

Ideally suited for uncoated endless papers for continuous printing.  
The HKS® EN colour book was matched on RF 80 g/m<sup>2</sup> Nordland woodfree white.  
The ink film thickness: approx. 1.2 g/m<sup>2</sup>.

### Further information

For single printing two additional base colour inks are available:

Novaform® HKS® 7 E BIO - Orange  
Novaform® HKS® 43 E BIO - Blue

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## Hints for mixing of colour book shades

Due to their high colour intensity and mono-pigmentation, the HKS® base colour inks of the series Novavit® HKS® K BIO, Novavit® HKS® N BIO INTENSIVE and Novaform® HKS® E BIO are perfectly suited to mix the colour book shades. The mixing recipes are based on HKS® base colour inks, transparent white and black, and can be found in the colour books of the individual series.

## Hints for further processing in laser printers

Prints that are made with Novaform® HKS® E BIO can be processed in all common laser printers due to their specific binder composition. Before starting further processing, the inks have to be dried completely.

## Fastness properties and print finishing

The fastness properties of the base colour inks of all 3 series are stated in the tables on the previous pages. The fastness properties of all other colour shades can be found in the colour books.

For further information on this topic please also refer to our Technical Review „Resistance requirements for surface finishing“.

## Colour books

The following colour books are available:

HKS® K colour book - article code: XW90-7500-9954

HKS® N colour book - article code: XW90-7513-9954

HKS® E<sub>n</sub> colour book - article code: XW90-7515-9954

HKS® E<sub>k</sub> colour book - article code: XW90-7516-9954

HKS® K 3000+ colour book - article code: XW90-7511-9954

HKS® N 3000+ colour book - article code: XW90-7512-9954

The colour books HKS® K 3000+ and HKS® N 3000+ include 3520 solid colour shades, that were developed on the base of the existing 88 HKS® colour shades. Each HKS® colour shade is now available in 39 nuances, that can be obtained as solid colours in proven HKS® colour fidelity.

## Exceptions

HKS® inks are not for use on food packaging without functional barrier.

## Additives

Printing oil L – Thinner

To adapt viscosity and tack 1 - 3 % can be added.

## Further information

Further information on the HKS® Colour System and about additional products such as the HKS® DTP package for example, can also be found on the internet under [www.HKS-Farben.de](http://www.HKS-Farben.de).

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