

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

### **Base colour ink series for sheetfed offset**

#### **Product features**

- The HKS<sup>®</sup> colour system consists of the 3 spot colour ink series: Novavit<sup>®</sup> HKS<sup>®</sup> K BIO, Novavit<sup>®</sup> HKS<sup>®</sup> N BIO INTENSIVE and Novaform<sup>®</sup> HKS<sup>®</sup> 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<sup>®</sup> inks can be obtained ready-to-print. With the exception of the base colours as well as Gold (HKS<sup>®</sup> 98) and Silver (HKS<sup>®</sup> 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<sup>®</sup> 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.





### Novavit<sup>®</sup> HKS<sup>®</sup> K BIO – for coated papers

K+E		Fastness properties/opaqueness						Printing properties								
		Opaqueness	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	
Novavit <sup>®</sup> HKS <sup>®</sup> K BIO Base Colour Inks	Colour Shade						6	5	5	5	5	5	7		6	
Novavit <sup>®</sup> HKS 3 K BIO	Yellow	t	5	+	+	+	1 = Characteristic weakly expressed 7 = Characteristic strongly expressed									
Novavit <sup>®</sup> HKS 7 K BIO	Orange	t	5	+	+	+	The assessment of the colour properties was made under standardised printing conditions.									
Novavit <sup>®</sup> HKS 13 K BIO	Red	50	5	+	-	+	In individual cases, under special conditions, as in printing with very high ink densities, the classification of certain properties may be different.									
Novavit <sup>®</sup> HKS 25 K BIO	Red	t	5	+	+	-										
Novavit <sup>®</sup> HKS 27 K BIO	Rot	t	4	-	-	-	Light fastness properties according to ISO 12040: from 1 (low) to 8 (high)									
Novavit® HKS 33 K BIO	Violet	t	4	-	-	-	Fastness properties according to ISO 2836: + = Good Resistance - = Not Resistant Opaqueness: o = opaque so = slightly opaque t = transparent									
Novavit <sup>®</sup> HKS 43 K BIO	Blue	t	4	-	-	-										
Novavit® HKS 47 K BIO	Blue	t	8	+	+	+										
Novavit <sup>®</sup> HKS 53 K BIO	Green	t	8	+	+	+			ur shade v se use the						ade	
Novavit <sup>®</sup> BCS BIO INTENSIV							1									
Transparent white	Colourless	t														

Novavit <sup>®</sup> BCS BIO INTENSIV Transparent white	Colourless	t				
Novavit <sup>®</sup> 918 SUPREME BIO (correspond to HKS 88 K)	Black	0	8	+	+	+

Drying properties Substrates

Drying by oxidation and setting, duct-fresh.

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

K+E		Fastness properties/opaqueness						Printing properties								
		Opaqueness	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		
Novavit® HKS® N BIO INTENSIVE Base Colour Inks	Colour Shade						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	+	+	+	The assessment of the colour properties was made under standardised printing conditions.									
Novavit® HKS 13 N BIO INTENSIVE	Red	<b>S</b> 0	5	+	-	+	In individual cases, under special conditions, as in printing with very high ink densities, the classification of certain properties may be different. Light fastness properties according to ISO 12040: from 1 (low) to 8 (high)									
Novavit <sup>®</sup> HKS 25 N BIO INTENSIVE	Red	t	5	+	+	-										
Novavit® HKS 27 N BIO INTENSIVE	Rot	t	4	-	-	-										
Novavit <sup>®</sup> HKS 33 N BIO INTENSIVE	Violet	t	4	-	-	-	Fastness properties according to ISO 2836: + = Good Resistance									
Novavit <sup>®</sup> HKS 243 N BIO INTENSIVE	Blue	t	4	-	-	-	<ul> <li>- = Not Resistant</li> <li><b>Opaqueness:</b> <ul> <li>o = opaque so = slightly opaque</li> <li>t = transparent</li> </ul> </li> </ul>									
Novavit <sup>®</sup> HKS 47 N BIO INTENSIVE	Blue	t	8	+	+	+										
Novavit® HKS 53 N BIO INTENSIVE	Green	t	8	+	+	+	*Deviating colour shade when printing on coated papers. For colour shade consistency please use the series Novavit® HKS® K BIO.									
Novavit® BCS BIO INTENSIV Transparent white	Colourless	t					1									
Novavit® 918 SUPREME BIO (correspond to HKS 88 N)	Black	0	8	+	+	+										
Drying properties	Drying by c	oxidatio	n and s	etting, c	luct-free	sh.										

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 <sup>®</sup> HKS <sup>®</sup> 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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### Novaform® HKS® E BIO – for continuous forms

K+E		Fast	ness pro	operties,	/opaque	ness	Printing properties							
		Opaqueness	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 <sup>®</sup> HKS <sup>®</sup> E BIO Base Colour Inks	Colour Shade						6 5 3 5 3 * 7						*	
Novaform <sup>®</sup> HKS 3 E BIO	Yellow	t	5	+	+	+					weakly exponent weakly exponent weakly exponent strongly exponent			
Novaform <sup>®</sup> HKS 207 E BIO	Orange	t	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.Light fastness properties according to ISO 12040: from 1 (low) to 8 (high)							nder
Novaform® HKS 13 E BIO	Red	<b>S</b> 0	2-3	+	+/-	-								
Novaform <sup>®</sup> HKS 25 E BIO	Red	t	5	+	+	-								
Novaform <sup>®</sup> HKS 27 E BIO	Rot	t	5	-	-	-								
Novaform <sup>®</sup> HKS 33 E BIO	Violet	t	4	-	-	-	Fastness properties according to ISO 2836: + = Good Resistance - = Not Resistant							
Novaform <sup>®</sup> HKS 243 E BIO	Blue	t	4	-	-	-	<b>Opaqueness:</b> o = opaque so = slightly opaque							
Novaform <sup>®</sup> HKS 47 E BIO	Blue	t	8	+	+	+	t = transparent							
Novaform <sup>®</sup> HKS 53 E BIO	Green	t	8	+	+	+	* Deviating colour shade when printing on coated papers.							
Novavit <sup>®</sup> BCS BIO INTENSIV Transparent white	Colourless	t					1							
Novavit <sup>®</sup> 918 SUPREME BIO (correspond to HKS 88E)	Black	0	8	+	+	+								
Drying properties Substrates	Drying by o Ideally sui The HKS® The ink fili	ted for ເ E <sub>N</sub> color	incoate ur book	d endle was ma	ess pape atched	ers for c on RF 8		•	0	dfree v	/hite.			
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 <sup>®</sup> HKS <sup>®</sup> 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® 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, can also be found on the internet under www.HKS-Farben.de.

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