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.
**HKS® Colour System**

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

<table>
<thead>
<tr>
<th>Novavit® HKS® K BIO Base Colour Inks</th>
<th>Colour Shade</th>
<th>Opaque</th>
<th>Light</th>
<th>Alcohol</th>
<th>Solvent mixture</th>
<th>Alkali</th>
<th>Dot gain</th>
<th>Gloss</th>
<th>Setting</th>
<th>Oxidative drying</th>
<th>Rub resistance</th>
<th>Rapid further processing</th>
<th>Suitability for gloss coated papers</th>
<th>Suitability for uncoated papers</th>
<th>Suitability for matt coated papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novavit® HKS 3 K BIO</td>
<td>Yellow</td>
<td>t</td>
<td>5</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>6</td>
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</tr>
<tr>
<td>Novavit® HKS 7 K BIO</td>
<td>Orange</td>
<td>t</td>
<td>5</td>
<td>+</td>
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<td>+</td>
<td>6</td>
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</tr>
<tr>
<td>Novavit® HKS 13 K BIO</td>
<td>Red</td>
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<td>5</td>
<td>+</td>
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<td>7</td>
<td>*</td>
<td>6</td>
</tr>
<tr>
<td>Novavit® HKS 25 K BIO</td>
<td>Red</td>
<td>t</td>
<td>5</td>
<td>+</td>
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<td>6</td>
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<tr>
<td>Novavit® HKS 27 K BIO</td>
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<td>4</td>
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<td>6</td>
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<tr>
<td>Novavit® HKS 33 K BIO</td>
<td>Violet</td>
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<td>4</td>
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<td>*</td>
<td>6</td>
</tr>
<tr>
<td>Novavit® HKS 43 K BIO</td>
<td>Blue</td>
<td>t</td>
<td>4</td>
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<td>7</td>
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<td>6</td>
</tr>
<tr>
<td>Novavit® HKS 47 K BIO</td>
<td>Blue</td>
<td>t</td>
<td>8</td>
<td>+</td>
<td>+</td>
<td>6</td>
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<td>5</td>
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<td>6</td>
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<tr>
<td>Novavit® HKS 53 K BIO</td>
<td>Green</td>
<td>t</td>
<td>8</td>
<td>+</td>
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<td>6</td>
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<td>5</td>
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<td>5</td>
<td>7</td>
<td>*</td>
<td>6</td>
</tr>
</tbody>
</table>

**Fastness properties/opaqueness**

1 = Characteristic weakly expressed
7 = Characteristic strongly expressed

**Printing properties**

**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/m².

The ink film thickness: approx. 1.5 g/m².

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

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)

**Fastness properties according to ISO 2836:**

+ = Good Resistance
- = Not Resistant

**Opaqueness:**

o = opaque  so = slightly opaque
t = transparent

*Deviating colour shade when printing on uncoated papers. For colour shade consistency please use the series Novavit® HKS® N BIO INTENSIVE.

**Novavit® BCS BIO INTENSIV**

Transparent white

**Novavit® 918 SUPREME BIO**

(correspond to HKS 88 K)

Black

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### HKS® Colour System

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

<table>
<thead>
<tr>
<th>Base Colour Inks</th>
<th>Colour Shade</th>
<th>Opaqueness</th>
<th>Light</th>
<th>Alcohol</th>
<th>Solvent mixture</th>
<th>Alkaline</th>
<th>Dam stain</th>
<th>Setting</th>
<th>Oxidative drying</th>
<th>Rub resistance</th>
<th>Rapid further processing</th>
<th>Suitability for gloss coated papers</th>
<th>Suitability for uncoated papers</th>
<th>Suitability for matt coated papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novavit® HKS 3 N BIO INTENSIVE</td>
<td>Yellow</td>
<td>t</td>
<td>5</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Novavit® HKS 207 N BIO INTENSIVE</td>
<td>Orange</td>
<td>t</td>
<td>5</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Novavit® HKS 13 N BIO INTENSIVE</td>
<td>Red</td>
<td>so</td>
<td>5</td>
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</tr>
<tr>
<td>Novavit® HKS 25 N BIO INTENSIVE</td>
<td>Red</td>
<td>t</td>
<td>5</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Novavit® HKS 27 N BIO INTENSIVE</td>
<td>Red</td>
<td>t</td>
<td>4</td>
<td>-</td>
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</tr>
<tr>
<td>Novavit® HKS 33 N BIO INTENSIVE</td>
<td>Violet</td>
<td>t</td>
<td>4</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Novavit® HKS 243 N BIO INTENSIVE</td>
<td>Blue</td>
<td>t</td>
<td>4</td>
<td>-</td>
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</tr>
<tr>
<td>Novavit® HKS 47 N BIO INTENSIVE</td>
<td>Blue</td>
<td>t</td>
<td>8</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<td></td>
</tr>
<tr>
<td>Novavit® HKS 53 N BIO INTENSIVE</td>
<td>Green</td>
<td>t</td>
<td>8</td>
<td>+</td>
<td>+</td>
<td>+</td>
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</tr>
<tr>
<td>Novavit® BCS BIO INTENSIV Transparent white</td>
<td>Colourless</td>
<td>t</td>
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</tr>
<tr>
<td>Novavit® B18 SUPREME BIO (correspond to HKS 88 N)</td>
<td>Black</td>
<td>o</td>
<td>8</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<td></td>
</tr>
</tbody>
</table>

### 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/m². The ink film thickness: approx. 2.0 g/m².

### 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

You are welcome to contact us for further information.
### HKS® Colour System

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

<table>
<thead>
<tr>
<th>Novaform® HKS® E BIO Base Colour Inks</th>
<th>Colour Shade</th>
<th>Opaqueness</th>
<th>Light</th>
<th>Alcohol</th>
<th>Solvent mixture/Nitro</th>
<th>Alkaline</th>
<th>Dot gain</th>
<th>Setting</th>
<th>Oxidative drying</th>
<th>Rub resistance</th>
<th>Rapid further processing</th>
<th>Suitability for gloss coated papers</th>
<th>Suitability for uncoated papers</th>
<th>Suitability for matt coated papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novaform® HKS 3 E BIO</td>
<td>Yellow</td>
<td>t</td>
<td>5</td>
<td>+</td>
<td>+</td>
<td></td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>*</td>
<td>7</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Novaform® HKS 207 E BIO</td>
<td>Orange</td>
<td>t</td>
<td>5</td>
<td>+</td>
<td>+</td>
<td></td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>*</td>
<td>7</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Novaform® HKS 13 E BIO</td>
<td>Red</td>
<td>so</td>
<td>2-3</td>
<td>+</td>
<td>+/-</td>
<td></td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>*</td>
<td>7</td>
<td>*</td>
<td>*</td>
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<tr>
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<td>Red</td>
<td>t</td>
<td>5</td>
<td>+</td>
<td>+</td>
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<td>6</td>
<td>5</td>
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<td>3</td>
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<td>7</td>
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</tr>
<tr>
<td>Novaform® HKS 27 E BIO</td>
<td>Rot</td>
<td>t</td>
<td>5</td>
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<td></td>
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<td>*</td>
<td>7</td>
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</tr>
<tr>
<td>Novaform® HKS 33 E BIO</td>
<td>Violet</td>
<td>t</td>
<td>4</td>
<td>-</td>
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<td></td>
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<td>5</td>
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<td>*</td>
<td>7</td>
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<td>*</td>
</tr>
<tr>
<td>Novaform® HKS 243 E BIO</td>
<td>Blue</td>
<td>t</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td></td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>*</td>
<td>7</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Novaform® HKS 47 E BIO</td>
<td>Blue</td>
<td>t</td>
<td>8</td>
<td>+</td>
<td>+</td>
<td></td>
<td>6</td>
<td>5</td>
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<td>3</td>
<td>*</td>
<td>7</td>
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</tr>
<tr>
<td>Novaform® HKS 53 E BIO</td>
<td>Green</td>
<td>t</td>
<td>8</td>
<td>+</td>
<td>+</td>
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<td>3</td>
<td>*</td>
<td>7</td>
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<td>*</td>
</tr>
</tbody>
</table>

### 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/m² Nordland woodfree white.
- The ink film thickness: approx. 1.2 g/m².

### 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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You are welcome to contact us for further information.

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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 colour book - article code: XW90-7515-9954
- HKS® E 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

BCS Reducer BIO 19 789 – 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.


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