



Colour diversity and reliability

The right number for true colour



The system

The HKS® system, an international colour system owned by the HKS® Warenzeichenverbandes e.V., has been conceived by Hostmann-Steinberg GmbH (**hubergroup**), K + E Druckfarben and Schmincke & Co. specifically for corporate design purposes.

The HKS® system provides those involved in the printing process – the graphic designer, prepress provider, printer and customer – with an instrument that, from the drawing board through to the final product, enables them to obtain perfect colour fidelity.

- 3,520 artists colours for limitless freedom of design.
- The ideal colour system for consistent corporate designs, not restricted simply to standard printing of papers and boards, but extending to the printing of textiles, colouring of plastics, plastic films, varnishes, and paints for buildings and cars.
- Once an HKS® colour has been defined, the colour shade and purity of this colour match up on all printing substrates used, thanks to the perfectly adapted mixing formulae. The mixed colours on coated paper (German: **Kunstdruckpapier**), uncoated paper (German: **Naturpapier**), continuous paper (German: **Endlospapier**) and newsprint paper (German: **Zeitungsdruckpapier**) offer the best accuracy of hue match possible. This is one massive advantage of the HKS® system compared with all other colour mixing systems on the market.

The colour guides

HKS® K 3000 plus for coated paper (**Kunstdruckpapier**)

HKS® N 3000 plus for uncoated paper (**Naturpapier**)

HKS® Z for newsprint (**Zeitungspapier**)

HKS® En for continuous paper on uncoated paper

HKS® Ek for continuous paper shows the colours of the standard En colour guide but on matt-coated paper

HKS® colour charts for 4-colour separations (K, N, E, Z)

The elementary and basic colours are proofprinted in the HKS® colour guides (fans) with the following film thicknesses commonly in use in the field:

HKS® K 3000 plus = 1.5 g/m²

HKS® N 3000 plus = 2.0 g/m²

HKS® E = 1.2 – 1.4 g/m²

HKS® Z = 1.3 – 1.4 g/m²

Optimum reproducibility on the press is therefore guaranteed.

- Based on 9 elementary colours plus black and transparent white, each of the various colour guides contains 88 shades (nuances); the only exception to this is the HKS® Z guide that has 50 shades.

The HKS® K 3000 plus and HKS® N 3000 plus guides each contain a matching range of 3,520 colour shades that offer the graphic designer a massive variety of colours from which to choose. The basis is formed by the 88 basic HKS® colours in full tone, which are lightened in 10 steps and also overprinted with 3 different steps of black to produce halftones. All shades shown for halftone are also available as full-tone colours.

- When reprints of the colour guides are made, the coloristics are always based on the HKS® K guide. The mixed colours for the guides printed on uncoated paper, continuous paper and newsprint are matched to the HKS® K guide.

Following production, the elementary and basic HKS® colours are colour-matched with the latest colour guide during the delivery inspection with the aid of a weighed proof and compared with the wet sample of the latest guide. In this way, we achieve the best possible colour fidelity, i.e. consistency of hue, when using similar substrates in the field.

Source – see www.hks-colour.com

The elementary and basic HKS® colours

The various colour guides are each based on 9 elementary colours plus black and transparent white.

The HKS® Colour System

9 elementary HKS® colours
plus Black and White



88 basic HKS® colours

(HKS® Z guide contains 50 basic colours)



3,520 HKS® artist colours

(HKS® K 3000 plus and
HKS® N 3000 plus)

The elementary colours for HKS® K and N have the following properties:

	HKS® K	HKS® N	(Fastness properties per DIN 16 524/25)				Alkali
			Light (BWS)	Trans- parency	Alcohol	Solvent mixture	
Yellow	3 K	3 N	5	L	+	+	+
Orange	7 K	7 N	5	L	+	+	+
Red	13 K	13 N	5	LD	+	-	+
Red	25 K	25 N	5	L	+	+	-
Red	27 K	27 N	4	L	-	-	-
Violet	33 K	33 N	4	L	-	-	-
Blue	43 K	43 N	4	L	-	-	-
Blue	47 K	47 N	8	L	+	+	+
Green	53 K	53 N	8	L	+	+	+
White	47 P 0000	47 P 0000		L			
Black	88 K	88 N	8		+	+	+

1. Fastness properties

To enable subsequent finishing with UV varnish or film laminating (celloglazing), the inks must be solvent- and/or alkali-resistant, but this can only be achieved by using special basic colour inks with better fastness properties. If necessary, a custom-made ink can be produced in line with a defined requirement profile. The use of fast pigments can lead to colour deviations in the mixed HKS® shades because compared with the standard pigment, pigments with higher fastness values often differ in practice with respect to their colorimetrics.

2. Finishing

The HKS® colour guides present the colours without surface finishing. Postprint finishing (varnishing or lamination) usually leads to a change in the colour shade. This is technically unavoidable and can not be counteracted by modifying the formula either.

3. Suitability for bar code

See TI 19.1.05 E, "HKS® printing inks for bar codes".

The software

HKS® DTP software package 3.0 (enhanced version) is available for Macintosh and the various Windows versions for use by graphic designers. The data of this DTP package can be integrated into programs such as QuarkXPress, FreeHand, Indesign, Illustrator, CorelDRAW, PowerPublisher and various other applications.

Among other things, the CD-ROM contains the CMYK and L*a*b*-50/2° and 65/2° values [CIELAB conditions DIN, Pol, Abs] for the HKS® K 3000 plus, N 3000 plus, E and Z fan.

The DTP package is rounded off by a comparison of the HKS® colour system with the RAL system.

Source – see www.hks-colour.com

Corporate design

The HKS® colour system offers the greatest possible choice and colour fidelity when developing and maintaining corporate designs. HKS® colours can be perfectly reproduced on almost any material.

You can always be sure of colour fidelity with colours defined in the HKS® system – and not only in prints.

The HKS® Warenzeichenverband e.V. has concluded appropriate agreements with a number of licencees from the screen printing, car paints, building paints and varnishes, plastic films, plastics colouring and textiles segments.

For further details and a list of HKS® partners, see www.hks-colour.com

The Internet

Please look on the Internet for information on where to order the HKS® colour guides, on the partners of HKS® and on how to purchase the DTP package: www.hks-colour.com

Contact addresses for advice and further information: www.hubergroup.de

This Technical information reflects the current state of our knowledge. It is designed to inform and advise. We assume no liability for correctness. Modifications may be made in the interest of technical improvement.

All product, brand and company names used in these Technical Information sheets may be registered trademarks of their respective owners.