

Sheetfed Pantone® Bio Inks

Deutsche Druckfarben is a Pantone® approved supplier of standard Pantone blending inks and special Pantone matchings. All our inks are tested and approved annually to ensure shade and strength conform to Pantone specification. All approved Pantone inks are the same strength and shade from all suppliers, if there are differences the inks cannot be Pantone approved.

Deutsche Druckfarben's High Strength Pantone® inks are free of mineral oil, Cobalt free and formulated on renewable raw materials to give excellent ink/water balance, high gloss, high rub resistance and quick setting. They are duct fresh overnight, suitable for use on gloss, matt and silk papers (although varnishing is recommended on matt and silk papers to optimise rub resistance) and are "Laser Safe" (when dried properly). When producing work for food packaging, please consult Technical Staff for advice.

Detailed below are some facts concerning Pantone:

- The Pantone book should only be used as a guide for colour specification as Pantone books do vary, but this is within the tolerances set by Pantone.
- The ink films used for each individual colour do vary and film weight adjustment has a large impact on the shade of the ink.
- **Deutsche Druckfarben** renew all Pantone books on the 1st working day in January each year and encourage our customers to do the same, as paper aging and handling can alter the shades of the guides.
- **Deutsche Druckfarben** inks are evaluated each year by Pantone to obtain supply approval, base colours and mixes are all tested.
- All Pantone inks for inter mixing are the same strength from each approved ink supplier to obtain an accurate match, however **Deutsche Druckfarben** can supply high strength Pantones for straight printing.
- The actual light source that the colour is viewed under is also important, as a standard **Deutsche Druckfarben** use D50 but if you require a matching under a specific light source this can be arranged.

The Pantone books should be used as a guide. Slight variation may occur between printings, as well as during each printing. Within the same printing, the high and low density tolerances can show a colour variation. Pantone recommends that when specifying colour, the customer should always use a colour chip from the PANTONE Colour Specifier to ensure precise colour communication. If a colour chip is not available, one must indicate the exact printing from which they are specifying or ideally supply the actual book. Good communication between the designer, the printer and the ink manufacturer is very important to achieve the desired finished product.

This datasheet highlights the potential problems which can occur. However, in general the problems encountered are minimal.

Deutsche Druckfarben have invested in the latest computerised spectrophotometer from Gretag, which allows colours to be clearly specified using colour metric systems. The colour co-ordinates can be transported to any location through the internet enabling colour communication at the touch of the button.

Demonstrations of this system can be carried out by prior arrangement.

There are also many other parameters which need to be considered when requesting special matchings. When an order is placed, information concerning the substrate to be used, whether the c or u shade of the Pantone book needs to be matched, and any post print processes such as lamination, UV varnishing, laser personalising etc. all need to be considered. Without all this information being carefully collated the final printed shade on press will be inaccurate, or the ink may not be suitable for its required end use.

UV Varnish and Lamination

It is important to understand that although **Deutsche Druckfarben** Sheetfed Pantones are formulated to be suitable for UV Varnish and Lamination, the following standard colours are not resistant to colour change under these conditions:

- Reflex Blue
- 072 Blue
- Purple
- Violet
- Rhodamine Red

Please note that LAMINATION Colours with high resistance properties are available on request. However, you should consult our Technical staff for advice on UV Varnishing such colours.

NOTE: When mixing with very low percentages of purple, it is possible under extreme circumstances for the pigment to be affected by the IPA in the fount mix - please contact our Technical Staff for further advice on the use of formulations based on resistant pigments.

Lightfastness

Lightfastness is an important consideration especially when producing work for display work i.e. posters. The Lightfastness figures are detailed below and relate to the full strength colour, if the colours are weakened with tint medium or printed as a screen these figures will be reduced.

| PANTONE® COLOUR SPECIFICATION | DEUTSCHE DRUCKFARBEN REFERENCE NUMBER | LIGHTFASTNESS |
|-------------------------------|---------------------------------------|---------------|
| Pantone® Bio Trans White | AD0402001.1 | N/A |
| Pantone® Bio Yellow | AD0402003.1 | 5 |
| Pantone® Bio Warm Red | AD0402006.1 | 2-3 |
| Pantone® Bio Rubine Red | AD0402009.1 | 5 |
| Pantone® Bio Rhodamine | AD0402010.1 | 4 |
| Pantone® Bio Purple | AD0402012.1 | 4 |
| Pantone® Bio Process Blue | AD0402015.1 | 8 |
| Pantone® Bio Reflex Blue | AD0402016.1 | 3 |
| Pantone® Bio Green | AD0402021.1 | 8 |
| Pantone® Bio Violet | AD0402013.1 | 3-4 |
| Pantone® Bio Black | AD0402022.1 | 8 |
| Pantone® Bio Yellow 012 | AD0402004.1 | 5 |
| Pantone® Bio 021 Orange | AD0402005.1 | 5 |
| Pantone® Bio 032 Red | AD0402007.1 | 5 |
| Pantone® Bio 072 Blue | AD0402017.1 | 4 |

| DEGREES OF LIGHTFASTNESS | SUMMER | WINTER |
|--------------------------|---------------|--------------|
| Blue Wool Scale 3 | 4 – 8 DAYS | 2 – 4 WEEKS |
| Blue Wool Scale 4 | 2 – 3 WEEKS | 2 – 3 MONTHS |
| Blue Wool Scale 5 | 3 – 5 WEEKS | 4 – 5 MONTHS |
| Blue Wool Scale 6 | 6 – 8 WEEKS | 5 – 6 MONTHS |
| Blue Wool Scale 7 | 3 – 4 MONTHS | 7 – 9 MONTHS |
| Blue Wool Scale 8 | OVER 1½ YEARS | |

All the inks above are formulated for balanced intermixing and are available in 1 kg and 2.5 kg vacuum packed tins. **Please note that these products have a shelf life of 2 years from date of delivery.**

This Product Data sheet is designed for your information and reference. It is based on and conforms to our current knowledge. However as actual application is affected by many factors over which we have no control, we are not liable for printing failures.