



Technical Information

5.03.01 | 06.2009 | UV-curing inks and varnishes



NewV pack® – UG 4700

The UG 4700 series of UV inks has been developed for sheet-fed offset, rotary label (letterpress) and continuous forms printing. The UG 4700 series has an **ITX-free** formula.

NewV pack - UG 4700		Fastness properties per DIN 16 524/25				
Euroscale		Light WS	Alcohol	Solvent mixture	Alkali	UV varnish
Yellow	41 UG 4700	5	+	+	+	+
Magenta	42 UG 4700	5	+	+	-	+
Cyan	43 UG 4700	8	+	+	+	+
Black	49 UG 4700	8	+	+	+	+
Lightfast version						
Yellow	41 UG 4701	7	+	-	+	+
Magenta	42 UG 4701	7	+	+	+	+

Special properties

- Wide range of fount solution tolerance
- High colour intensity
- Rapid adjustment of a stable ink / water balance
- Fast curing
- Minimal misting
- Suitable for laser printers (pre-production test is necessary).
- Low-odour
- ITX-free
- Colour shades in accordance with DIN ISO 2846-1/12647-2

Range of applications

The UG 4700 series is suitable for:

- Coated and uncoated papers and card stocks
Highly absorbent stocks can greatly reduce the curing speed.
- Thermal papers
A number of thermal papers react to UV vehicles. For this reason, always carry out a test prior to beginning the print run.
- Conditionally for pretreated PE, PP (corona or gas flame) or preprimed material*
- Top-coated grades of board*

We recommend application of a UV varnish in order to provide effective protection of the print image (see TI 5.10.02 entitled "NewV lac for UV curing").

* Non-absorbent substrates must have a surface tension of at least 38 mN/m in order to ensure optimum ink adhesion. In view of the large number of substrate suppliers and different substrates and substrate grades available, we recommend you carry out an adhesion test prior to beginning the print run. Subsequent laser printing of UV-printed products



When using these inks in a laser printer, overprinting problems can arise, especially in image areas with very high ink coverage. We recommend that ink coverage of 50% is not exceeded in such areas.

When the fusing temperatures of toners are high, there is a possibility of deposits building up on the fusing roller or fusing plate of the hot-laser printer – even more so when the amount of ink and varnish being applied is high – due to thermoplastic properties of the cured ink or varnish films.

PANTONE® Rhodamine Red, Purple, Blue 072, Reflex Blue and HKS® 27, 33 and 43 also cause problems due to the poor temperature resistance of their pigments as the toner is fused. They must be substituted by inks of a similar colour shade but formulated with heat-resistant pigments.

Food and confectionery packaging

More information on the subject of food and confectionery (semi-luxury foods and tobacco) packaging can be found in the information sheet entitled “Printing inks for food packaging” published by the German Printing Ink Manufacturers’ Association and in TI 5.04.01 entitled “NewV UV inks and varnishes for food packaging”.

Printing auxiliaries

The inks are always supplied ready to use. The following auxiliaries are available to help you adjust the process inks in exceptional cases:

- **NewV sup Paste Reducer 40 U 1002 (reduces tack)**
- **NewV sup Activator Paste 40 U 1011**

For further auxiliaries, see TI 5.12.01 entitled “NewV sup UV printing auxiliaries”.

Classification

Safety Data Sheet available on request.

Shelf life

At least 12 months when stored under the correct conditions (20°C, protected against heat and light).

How supplied

2.5-kg cans

Contact addresses for advice and further information can be found under www.NewV-inks.com

This Technical Information sheet 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.