



## NewV metal pigmented LED inks

UV curing metallic inks (LED and Iron doped system) for sheet-fed offset, rotary and narrow web offset

**NewV LED** metal pigmented inks give a special look to the printed product, they have good brilliance and metallic effect, good printability, good consistency during the printing run, high reactivity and fast curing. The **NewV LED** metal pigmented inks were designed for sheet-fed, web-fed offset and book printing with LED and Iron doped curing.

**NewV LED** metallic inks do not include volatile solvent, they are VOC free products.

### Application

Metal-pigmented two-component inks contain additives that help to stabilise the metallic surface and prevent the oxidation in order to keep the required metallic gloss of the ink layer. But these substances have a negative effect on the UV-resistant roller coverings and rubber blankets (e.g. EPDM). By this reason, during the printing run piling and swelling problems may occur.

When printing wet-on-wet UV-curing bronze inks, you can notice copper deposition on the printing plates. This may lead to scumming (toning). It can be avoided by using imitation gold inks based on ground aluminium powder or by printing the bronze ink from the last printing unit.

To obtain a perfect metallic effect, the pH-value cannot be lower than 5.5.

By the reason of the printing characteristics of the metallic inks there is a possibility to use only 8-10% of isopropyl-alcohol in the dampening, without adding fountain solution additive.

Mixtures of metal pastes and UV-curing varnishes tend to polymerise (cure) very quickly. For this reason, they need to be mixed right before the printing starts, not sooner. After mixing the two components together, the print has to start.

### Postprint finishing

Because of the reflexion of the light, the best metallic effect can be obtained only on coated stocks that have an even, smooth surface:



The metallic effect cannot be enhanced by increasing the ink thickness. This simply leads to printing problems like piling, poor curing, very low smudge and rub resistance.

There is a rule, especially for solid image areas: never print silver ink from the last unit. Smoothing out the print with passing under an additional blanket before curing helps to enhance coating quality.

The UV metallic inks listed in this information sheet are suitable for inline or offline UV coating. But please consider that the application of a UV varnish or lamination foil significantly reduces the metallic effect. If the print is to be laminated, prior tests are always necessary before the printing run. UV prints (without UV varnish) are not suitable for gluing, blister packaging, hot foil stamping, etc.

Adhesion problems arise very often during post-print finishing of metal-pigmented offset prints. In this case, we recommend you to carry out pre-production adhesion and scratch resistance test.

## Range of applications

### Two component PANTONE metallic colour shades

The following **NewV LED** systems are suitable for:

- Coated and uncoated papers and cardboards.
- Pre-treated, non - absorbent substrates such as PE, PET, PP, BOPP, PVC, PS, etc.
- Aluminium - vaporised paper and board<sup>1</sup> and card stocks
- Aluminium foils <sup>1</sup>

Two-component systems – PANTONE colour shades				
Description		Sales code	Mixture share	How supplied
<b>Gold PANTONE 871 – 876</b>				
NewV 2K Gold Varnish	PANTONE 871	40UPL0871	60%	1,2 kg
NewV 2K Rich Gold Paste	PANTONE 871	46U8050	40%	0,8 kg
NewV 2K Gold Varnish	PANTONE 872	40UPL0872	60%	1,2 kg
NewV 2K Rich Gold Paste	PANTONE 872	46U8050	40%	0,8 kg
NewV - 2K Gold Varnish	PANTONE 873	40UPL0873	60%	1,2 kg
NewV 2K Rich Pale Gold Paste	PANTONE 873	46U8150	40%	0,8 kg
NewV - 2K Gold Varnish	PANTONE 874	40UPL0874	60%	1,2 kg
NewV 2K Pale Gold Paste	PANTONE 874	46U8250	40%	0,8 kg
NewV - 2K Gold Varnish	PANTONE 875	40UPL0875	60%	1,2 kg
NewV 2K Rich Pale Gold Paste	PANTONE 875	46U8150	40%	0,8 kg
NewV - 2K Gold Varnish	PANTONE 876	40UPL0876	60%	1,2 kg
NewV 2K Pale Gold Paste	PANTONE 876	46U8250	40%	0,8 kg
<b>Silver PANTONE 877</b>				
NewV - 2K Silver Varnish	PANTONE 877	40UPL0877	70%	1,4 kg
NewV - 2K Silver Paste	PANTONE 877	46U9000	30%	0,6 kg

## Food packaging

The products listed above are not suitable for printing primary food packaging or secondary packaging where the primary layer is not a barrier against migration of substances from the printed layer to the packed product. More information on the subject of packaging for food, cosmetics, pharmaceutical products, tobacco can be found in the information sheet *50.G.002 NewV for food packaging*. Please also find information on the webpage of the European Printing Ink Association: [www.eupia.org](http://www.eupia.org).

## Lightfastness

The ready-mixed products have a lightfastness of 8.

## **Classification**

Safety Data Sheet available on request.

## **Shelf life**

The minimum shelf life of these products is 12 months from the production date if the container is not opened. But dependent on the storing and handling conditions, they can be usable much longer. For extending the warranty period, please contact our sales representatives.

Further information: Store between 5 - 25°C. Higher storage temperature may reduce shelf life. Protect from frost and sunlight. The cans need to be closed back immediately after usage.

## **Packaging**

See tables above.