



NewV® Opaque White

for UV printing

Among all the available colouring agents (pigments, dyes), titanium dioxide is the white pigment that offers very good coverage properties (opacity) and provides a high degree of whiteness. By this reason the opaque white inks contain high concentration of this pigment.

You can use opaque white in coloured printing inks to give them an opaque appearance or for direct printing of substrates in order to mask them.

All **NewV opaque whites** listed below are suitable for letterpress and offset printing.

Properties

- Fast curing
- Good adhesion
- Very good opacity
- Good printability
- High brilliance
- Low yellowing properties
- Very good adhesion on non-absorbent substrates
- Low odour
- ITX free

Standard mercury lamp applications

We recommend you the **NewV poly** for **non-absorbent** and the **NewV maxX** opaque whites for **absorbent** and also for **non-absorbent substrates**:

Name	Sales code	Description	Fastness properties according to ISO 12040 / ISO 2836				Tack
			Light WS	Alcohol	Solvent mixture	Alkali	
NewV poly untoned	47UP0001	Improved press performance and ink/water balance, recommended for non-absorbent substrates.	8	+	+	+	15-18
NewV poly toned	47UP0002	Improved press performance and ink/water balance, recommended for non-absorbent substrates.	7	+	+	+	15-18
NewV label untoned	47UL0001	Standard product for premium packaging with very good press performance, for absorbent and non-absorbent substrates.	8	+	+	+	12-15

LED and IRON DOPED mercury lamp applications

The **NewV poly LED** opaque white is available for **non- absorbent and absorbent substrates**:

Name	Sales code	Fastness properties according to ISO 12040 / ISO 2836				Tack
		Light WS	Alcohol	Solvent mixture	Alkali	
NewV poly LED untoned	47UPL0001	8	+	+	+	12-15

Substrates

Absorbent substrates:

- Coated and uncoated papers and cardboard stocks
- Top-coated grades of board¹

Non-absorbent substrates:

- Pretreated, non-absorbent substrates such as PE, PP, PVC, PS, etc. ¹
- Aluminium-vaporised paper and cardboard stocks¹
- Aluminium foils¹

Applications

Recommended roller covering and rubber blanket:

- **NewV maxx**: EPDM
- **NewV poly, HS and LED** series: EPDM

Depending on the substrate one or two layers of opaque white may be needed.

Due to the limited thickness of the ink film in the offset process and the colour of the surface, different results are obtained on different substrates (e.g. grey board, brown board, aluminium vaporised paper).

High quantities of opaque white can slow down the UV curing process.

To obtain a good white shade after one pass, 2.0 – 2.5 g/m² ink application rate of is required. Printing with two plates results in even better quality and smoother layer.

By tinting opaque whites (giving it a slightly bluish tinge), an even whiter effect can be obtained on aluminium-vaporised paper.

The adhesion (keying) of UV-curing inks and varnishes to plastic films, cast-coated stocks and pre-treated metal surfaces may be negatively affected by separating agents, slip agents and plasticisers adhering to these surfaces (especially plastic films). Their lubricant and plasticizer components have a tendency to migrate to the surface of the substrate and step into chemical reaction with the substances of the ink/varnish layer.

We advise not to print on metal and plastic surfaces that are not pre-treated due to unfavourable adhesion characteristics between UV ink / varnish films and the substrate surface.

When changing over to printing with opaque white, the ink rollers must be cleaned very thoroughly in order to avoid contamination of the white with other colours. If possible ink up the rollers with opaque white and scrape them off several times.

UV inks and varnishes needs to have a good tape (Scotch, Tesa) resistance in order to ensure trouble-free further processing. But the good result tape test does not consequently mean good scratch resistance (nail test) as well. Overcoating the ink layer with UV varnish that contains lubricants can

¹ Non-absorbent substrates must have a surface tension of at least 38 mN/m in order to ensure optimum ink adhesion. We generally recommend running an adhesion test before beginning the actual print run.

improve scratch resistance. However, the adhesion to a substrate cannot be improved this way, it can be the result. Please find our Technical Information sheets about UV curing varnishes on our website.

Due to the quality differences in the substrates on the market, we recommend you to carry out tests before starting the commercial print run.

Auxiliaries

The **NewV opaque white** inks are ready to use products. In case small adjustments are needed for special requirements, please find the recommended additives in our technical information sheet: *50A001 NewV sup_Auxiliaries for UV offset printing*.

Food and confectionery 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.

Classification

Safety data sheet is available on request.

Shelf life

The minimum shelf life of these products is 18 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

2.5 kg cans (3kg opaque white ink)