

Technical Information

50.W.005 | Radiation-curing Systems | Opaque White Inks



NewV[®] tin MGA Opaque White

UV curing ink for sheet-fed offset, printing on tin-sheets, for food packaging

NewV tin MGA Opaque White is a ITX-free/ BP-free, UV curing ink for food-packaging, sheet-fed offset print on tin sheets

The product mentioned below is recommended for offset printing with standard mercury lamp curing unit. 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.

NewV tin MGA Opaque White listed below is suitable for letterpress and offset printing.

NewV tin MGA Opaque White is developed to decrease the possibility of the swelling problems of nitrile based and EPDM rubber rollers and blankets.

Properties

- No swelling on NBR or EPDM rollers (certificated Böttcher and Westland)
- Very good adhesion
- Fast curing, high reactivity
- Sterilization ability
- Low smell
- Good flow in the duct
- dot sharpness
- High density
- Very good opacity
- Good printability, good Ink/water stability
- Low yellowing properties
- Applicable in sheet-fed

Name	Sales code	Description	Fastness properties according to ISO 12040 / ISO 2836				Tack
			Light WS	Alcohol	Solvent mixture	Alkali	
NewV tin MGA Opaque White untoned	47UT0001M	For food packaging Improved press performance and ink/water balance, recommended for tin-sheets.	8	+	+	+	15-18
NewV tin MGA Opaque White toned	47UT0002M	For food packaging Improved press performance and ink/water balance, recommended for tin-sheets.	7	+	+	+	15-18

Substrates

- The NewV tin MGA printing series are suitable for:
 - White-coated tin plate
 - Transparent primed tin plate

Applications

Recommended roller covering and rubber blanket:

NewV tin Opaque White for NBR, EPDM

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.

The adhesion 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 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 ink and 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.

Please consider that highly absorbent stocks can significantly reduce the curing speed.

As always in case of UV printing, the amount of fount solution should be kept on the minimum to avoid emulsification and ink/water balance problems.

Never use photoinitiators or photoinitiator pastes for these products and never use anti-drier, anti-skin, ink or freshener on the rollers.

Auxiliaries

The **NewV tin MGA Opaque White** ink is ready to use products. In case small adjustments are needed for special requirements, please find the recommended additives in our technical information sheet: 50.A.004 *NewV sup_Auxiliaries for UV food packaging printing_offset*. Only auxiliaries that were developed for food packaging are allowed to be used to keep the migration properties of the ink.

By the same reason we recommend special fount solution concentrates for applications where the migration from the printing components has to be avoided. For further information about them, please read the product *related technical information sheet 50.F.002 NewV fix for food packaging*

Food and confectionery packaging

Regulation (EC) No 1935/2004 requires that the materials and articles which, in their *finished* state, are intended to be brought into contact with foodstuffs or which are brought into contact with foodstuffs, must not transfer any components to the packed foodstuff in quantities which could endanger human health, or bring about an unacceptable change in the composition or deterioration in organoleptic properties.

Provided that our products cited above are used in accordance with the information given in our technical information sheets and correctly processed and cured, and provided that the food packaging is designed in a way that there is no intended food contact with the print, we hereby confirm that our products will in principle allow compliance of the final product with Regulation (EC) No. 1935/2004.

- The **hubergroup** products cited above are formulated and manufactured in compliance with the EuPIA "Good Manufacturing Practices (GMP) – Printing Inks for Food Contact Materials" published by EuPIA, the European Printing Ink Association.
- To prevent any contamination with components from conventional inks, the NewV MGA products are manufactured in a separate production area specifically designated for this purpose.
- The products are compliant with section 8b ("packaging inks") of the Swiss Ordinance 817.023.21 (Verordnung des EDI über Bedarfsgegenstände vom 23. November 2005.).

The manufacturer (printer, converter) of the packaging and the filler who puts the foodstuff into the packaging have the legal responsibility to verify that the finished product fulfils the legal and industrial requirements.

To allow other members of the packaging chain to assess compliance of the printed packaging with the Framework Regulation (EC) No.1935/2004, the Plastics Regulation (EU) No. 10/2011 and/or the Swiss Ordinance 817.023.21, the "Statement of Composition" (SoC) is available on request. Please note that when carrying out a risk assessment, paper, board and many plastic materials, like PE or PP are not sufficient barriers for migratable substances from UV curing inks and varnishes.

More information on the subject of packaging for food, cosmetics, pharmaceutical products and tobacco can be found in the information sheet *50.G.002 NewV MGA products _UV inks and varnishes for food packaging*. Please also find information on the webpage of the European Printing Ink Association: www.eupia.org.

Shelf life

18 months from the delivery date if the container is not opened. 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 ink)