

Technical Information

50.P.004 | Energy-Curing Systems | Ink Series, Process Inks



NewV[®] poly

ITX – free, UV – curing ink for sheet – fed offset, rotary and narrow web offset printing on non – absorbent substrate

NewV poly ink series

Name and sales code	Type	Special properties
NewV poly UP 4010	Intense	High colour intensity

Table 1: UV – curing ink series for non – absorbent substrates, including sales code and special properties

General properties

- Good adhesion on non – absorbent substrates
- High colour intensity
- ITX – free
- Rapid adjustment of a stable ink / water balance
- Colour shades in accordance with ISO 2846-1 and ISO 12647-2

Process Ink		Fastness properties according to ISO 12040 / ISO 2836				
.... are wildcards for the digits of the sales code from table 1		Light WS	Alcohol	Solvent mixture	Alkali	UV – coating
Yellow	41 UP 4010	5	+	+	+	+
Magenta	42 UP 4010	5	+	+	-	+
Cyan	43 UP 4010	8	+	+	+	+
Black	49 UP 4010	8	+	+	+	+
Lightfast versions						
Yellow	41 UP 4001	7	+	bd	+	+
Yellow transparent	41 UP 4002	7	+	+	+	+
Magenta	42 UP 4001	7	+	+	+	+

Table 2: Resistances of the NewV poly standard process inks

Range of applications

The NewV poly series are suitable for:

- Pretreated, non – absorbent substrates such as PE, PP, PVC, PS, etc.
- Aluminium – vaporised paper and board¹ and card stocks
- Aluminium foils¹

We recommend application of a UV varnish in order to provide effective protection of the printed image (see TI about “NewV lac for UV curing”).

The adhesion of UV – curing inks and varnishes to plastic films, cast – coated stocks and pretreated metal surfaces may be negatively influenced by separating agents, lubricants or plasticisers adhering to these surfaces (especially plastic films). (We advise against printing on unpretreated metal surfaces due to unfavourable adhesion characteristics between UV ink / varnish films and the substrate surface.) Good resistance to the adhesive (Scotch) tape test does not necessarily imply good scratch

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.

resistance (nail test). In such cases, overvarnishing with UV-curing varnishes can help improve scratch resistance. At any rate, UV – cured inks and varnishes must have good tape resistance in order to ensure trouble-free further processing. Due to the differences between the various materials mentioned above, we recommend you carry out tests prior to beginning the print run.

More information

For more information, see TI “NewV UV-curing inks and varnishes”.

The special formulation of our **NewV poly** system causes an optimal adherence on non-absorbent substrates. This can determine an increased swelling-performance on mixed-rollers.

Therefore we recommend a pre-inspection of the swelling-performance in case of using the **NewV poly** series in combination with mixed rollers.

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 about „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 Reducer Paste 40 U 1002 (reduces tack)**
- **NewV sup Activator Paste 40 U 1003**

For further auxiliaries, see TI about „NewV sup UV printing auxiliaries“.

Classification

Safety Data Sheet available upon 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