# **Technical Information**

50.P.101 | Radiation-curing Systems | Ink Series, Process Inks





# NewV set HS

UV curing ink for sheet-fed offset with iron doped mercury lamps printing on absorbent substrate

**NewV set HS** series are high sensitive UV inks with intense colour for low energy UV curing applications. They are suitable for H-UV, LE-UV, HR-UV, LEC-UV and further iron doped lamp curing systems.

## **Properties**

We recommend the NewV set UEH 4000 series for standard applications with the following properties:

- Stable ink / water balance
- Fast curing
- High gloss
- Low dot gain
- Good transfer
- High mechanical film resistance
- Colour shades in accordance with ISO 2846-1 and ISO 12647-2

Process colours	Sales code	Fastness properties according to ISO 12040 / ISO 2836						
		Light WS	Alcohol	Solvent mixture	Alkali	UV varnish		
Yellow	41 UEH 4000	5	+	+	+	+		
Magenta	42 UEH 4000	5	+	+	-	+		
Cyan	43 UEH 4000	8	+	+	+	+		
Black	49 UEH 4000	8	+	+	+	+		
Lightfast versions								
Yellow	41 UEH 4001	7	+	+	+	+		
Magenta	42 UEH 4001	7	+	+	+	+		

We recommend the **NewV set UEH 5000** series for high performance applications with the following properties:

- Higher reactivity, fast curing
- Rapid adjustment of a stable ink / water balance
- Recommended also for printing presses without ink agitator
- Ideal for IPA-free printing
- Low dot gain
- Good transfer
- High mechanical film resistance
- Colour shades in accordance with ISO 2846-1 and ISO 12647-2

Process colours	Sales code	Fastness properties according to ISO 12040 / ISO 2836						
		Light WS	Alcohol	Solvent mixture	Alkali	UV varnish		
Yellow	41 UEH 5000	5	+	+	+	+		
Magenta	42 UEH 5000	5	+	+	-	+		
Cyan	43 UEH 5000	8	+	+	+	+		
Black	49 UEH 5000	8	+	+	+	+		
Lightfast versions								
Yellow	41 UEH 5001	7	+	+	+	+		
Magenta	42 UEH 5001	7	+	+	+	+		

We recommend the NewV set UEH 5004 series in case of laser overprinting. Their properties are:

- High reactivity, fast curing
- Rapid adjustment of a stable ink / water balance
- Recommended also for printing presses without ink agitator
- Ideal for IPA-free printing
- Low dot gain
- Good transfer
- High mechanical film resistance
- High heat resistance
- Colour shades in accordance with ISO 2846-1 and ISO 12647-2

Process colours	Sales code	Fastness properties according to ISO 12040 / ISO 2836				
		Light WS	Alcohol	Solvent mixture	Alkali	UV varnish
Yellow	41 UEH 5004	5	+	+	+	+
Magenta	42 UEH 5004	5	+	+	-	+
Cyan	43 UEH 5004	8	+	+	+	+
Black	49 UEH 5004	8	+	+	+	+

#### Substrates

The NewV set HS series are suitable for:

- Coated and uncoated papers and cardboard stocks.
  Conditionally recommended for pre-treated PE, PP (corona or gas flame) or pre-primed material<sup>1</sup>
- Top-coated grades of board<sup>1</sup>

#### Applications

By the reason of the high mechanical stability of the cured ink layer, on coated papers no varnish protection is needed, however in case of special substrates or more demanding applications we recommend to use UV varnish in order to provide effective protection for the printed image (see Technical information about "NewV lac for UV curing").

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

#### **Printing auxiliaries**

The **NewV set HS** 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: <u>www.eupia.org</u>.

#### Classification

Safety data sheet is available on request.

<sup>1</sup> 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.

## 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

2.5 kg cans

Contact addresses for advice and further information can be found under www.hubergroup.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.