Zeller+Gmelin
Mineralöle · Druckfarben · Chemie

UVALUX® UL-5P100 Lacquer

(Old no.: U0700)

High Gloss Lacquer or Primer for UV Offset and UV Letterpress Printing

Characteristics

With the UVALUX® UL-5P100 Lacquer we present a high gloss lacquer, especially for printing of brochures, labels and packaging for non-food applications.
UVALUX® UL-5P100 is characterized by its very good adhesion. Therefore it can also be used as primer to improve ink adhesion on substrates with difficult printing properties.

Technical Data

- **Viscosity**: 7-8 Pas (20°C)
- **Solids Content**: 100 %
- **Drying/Curing**: UV-Hg (Mercury Vapour)
- **Substrate**: Film - Paper Plastic Coated - Paper Metalized - Paper Coated - Paper Uncoated
- **Printing Process**: Offset Sheet-Fed - Offset Web-Fed - Letterpress
- **Press Performance**: Adhesion Optimized - High Reactivity
- **Surface Properties**: Glossy
- **Further Processing**: Hotfoiling - Thermal Transfer - Inscribable with ball pen
- **Application**: Brochures - Folded Box - Self Adhesive Labels
- **End Application**: Non-Food
- **Market**: Commercials - Packaging - Labels

Packing Units

- 5 kg Plastic Bucket (black)

Technical Service Center

Kindly note that we are ready at any time for competent technical application support on your site. Please contact our technical service centre for printing inks:

Ink-Service@Zeller-Gmelin.de
Tel: +49 7161 802-279

Additives

UVALUX® U0010 UV Reducer

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Addition max. 10%
Reduces the viscosity

UVALUX® U0060 UV Accelerator
Addition max. 5%
Improves curing of the ink, viscosity changes only marginally.

W963 UV Wash Up with Lemon Smell
Suitable for cleaning inking systems, sleeves, plates, blankets, etc.
Not approved for automatic washing units

Remark:
The addition of any additive might change the overall characteristics of the printing ink.

Storage

Optimal storage conditions:
The optimal storage temperature is 20°C. Higher storage temperatures reduce the shelf-life.

Remarks:
- protect from frost
- store in a cool and dark place
- stir well before use
- can should be closed immediately after usage

Warranty:
If the inks are stored correctly, we guarantee a shelf life of 6 months from date of delivery, as our raw material suppliers guarantee this period to us. However we know from practical experience our products can remain usable for 1-2 years or longer if they are properly handled and stored.

Practice Remarks

Resistance requirements on overprinted inks
Overprinted inks should be resistant against alcali according to DIN 16524. Exception: Although the standard processs magenta of our UVALUX® and UVAFLEX® ink series is not alcali resistant it can be overprinted with this lacquer without problems.

Printing Materials
We recommend using ester and ketone resistant rollers (EPDM-material). The inking roller, rubber blanket and printing plate

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have to be resistant against UV-inks and UV-detergents (see manufacturers instructions).

Preliminary Tests Recommended
Before beginning to print we recommend practice oriented pretests on your substrate, in order to test the desired characteristics of the finished product.

Marking

Marking according to EC legislation:
Our inks are classified and marked according to EC legislation and the German “Gefahrstoffverordnung” (German dangerous substances regulation).
The material safety data sheet (MSDS) is available on request.

Remarks on Migration and Conformity

The following remarks are valid for the production of food packaging which conforms to the regulations in the European Union. We can not make any statements concerning food packaging legislation of countries outside the EU.

Regulation (EC) No. 1935/2004 requires that the one responsible for the “placing on the market” of a packaging article must have an appropriate documentation available to demonstrate the compliance with the rules related to food processing and distribution.

Not only the used materials have an influence on the food-legislation related properties of a packaging. The production process of the packaging has a significant impact as well.

Therefore we recommend that you send your finished products to a recognized analytical institute for examination and certification. That way you can prove that your products comply with the legal requirements.

The transfer of substances from the packing into the filling is called migration. The following production parameters have a significant influence on the grade of migration:

- correct processing, especially the complete through-cure of the ink film
- type of substrate and substrate thickness (sufficient barrier effect of the substrate)
- prevention of a direct contact of the printing ink with the food
- use of low-migration printing inks

The UVALUX® UL-5P100 Lacquer has no special low-migration formulation. Therefore we recommend for food packaging our low-migration ink series and lacquers which are availlable for many applications.

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Generally you should ensure with a migration analysis that no migration through the entire packaging system takes place. Due to the multitude of packaging materials and their completely different barrier properties we are unable to make any statements regarding through-migration.
However please note that migration can also occur by set-off when the printed surface is pressed against the food-contact surface of the packaging in the stack or reel.

Declaration of Composition and Product Declaration

As there are no specific regulations concerning printing inks and varnishes Zeller+Gmelin -like other ink suppliers- is obliged to follow regulations in the EU not directly related to printing inks.

Regulation (EU) 1935/2004
Article 3 of the Regulation 1935/2004 (impact on food) demands, that materials and articles do not transfer their constituents to food in quantities which could endanger human health or bring about an unacceptable change in the composition of the food or bring about a deterioration in the organoleptic characteristics thereof.
We urgently advise you to use for printing on food packaging only printing inks/lacquers which we specifically recommend for this application and which have a low-migration formulation.
A possible impact on the quality of food does not solely depend on the printing ink/lacquer itself but is depending on the complete production chain (ink laydown, UV-power, substrate, etc.). For this reason we can generally not confirm a compliance to Regulation 1935/2004 only based on the composition of the ink/lacquer.
Based on Article 17 (traceability) material and articles shall be ensured at all stages in order to facilitate control, the recall of defective products, consumer information and the attribution of responsibility.
All raw materials for ink/lacquer batches at Zeller+Gmelin are documented in writing on the Formula Component Report. Based on the batch number every raw material can be clearly traced back to the raw material batch.

Regulation (EU) 2023/2006
This so called GMP regulation (Good Manufacturing Practice) defines the requirements on the different participants in the manufacturing process of materials and articles intended to come into contact with food. It requests a system for quality assurance, control and documentation (§5-7). The EuPIA defined the requirements on printing ink manufacturers in the EuPIA-GMP.

Regulation (EU) No 10/2011 and Regulation (EU) 1282/2011
Regulation EU 10/2011 and 1282/2011 establishes the specific rules for plastic materials and articles to be applied for their safe use and repeals Commission Directive 2002/72/EC of 6 August 2002 on plastic materials and articles intended to come into contact with foodstuffs (2).
In this regulation, the so called PIM (Plastic Implementation Measure) limits are set for substances, which are allowed to be in direct contact with food and are allowed to migrate into the food up to the level listed in Annex I.
Substances used in printing inks must not (with few exemptions) get in direct contact with food and are therefore not listed in

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Annex I.
Paragraph (30) states, that Coatings, printing inks and adhesives are not yet covered by a specific EU legislation and therefore not subject to the requirement of a declaration of compliance.
For the migration of non–authorised substances through a functional barrier into food a limit of 0,01 mg/kg (10 ppb) is set. Substances that are mutagenic, carcinogenic or toxic to reproduction should not be used without previous authorisation in food contact materials or articles and should therefore not be covered by the functional barrier concept.

CEPE / EuPIA – Exclusion Policy
CEPE is the European Council of producers and importers of paints, printing inks and artists colours whereas EuPIA is the European Printing Ink Group of CEPE. The printing ink industry voluntarily came up with the Exclusion Policy for specific substances many years ago.
Zeller+Gmelin is an active member in the EuPIA and subgroups. The raw materials used by Zeller+Gmelin for the formulation of our printing inks/lacquers meet the guidelines of the CEPE / EuPIA Exclusion Policy. This means that CMR 1A and 1B substances (cancerogenic, mutagenic and reprotoxic) plus T (toxic) and T+ (very toxic) are not used in our printing inks/lacquers.

Heavy Metals
CONEG stands for Coalition of North-Eastern Governors in the USA . One of their legislations, adopted by 18 states as of 1998, requires reductions in the amount of the four heavy metals mercury, lead, cadmium, and hexavalent chromium in packaging and packaging components sold or distributed in their member states. For Zeller+Gmelin printing inks/lacquers the limits for heavy metals as listed in the CONEG-Regulation (USA) are met. The Euro Norm 71.3 refers to the max level of heavy metals in childrens toys. For Zeller+Gmelin printing inks/lacquers the limits for heavy metals as listed in the DIN EN 71-3 are met.
Heavy metals are no part of our formulations.

Hazardous substances
Substances mentioned in the directive 2002/95/EC (RoHS) and directive 2011/65/EC are not intentionally used in our formulations printing inks/lacquers.
SVHC-substances (substances of very high concern): In our products no substances are used which are classified as CMR 1A & 1B, PBT (PBT pollutants are chemicals that are toxic, persist in the environment and bioaccumulate in food chains), vPvB (Substances that are potentially very persistent and very bioaccumulative) und endocrine disruptors (artificial hormones).
Furthermore we confirm that our printing inks/lacquers are in accordance with the EC regulation 1895/2005 (repeals the guide line 2002/16/EC).

ISO 9001
The production site of Zeller+Gmelin / Germany is certified according to DIN EN ISO 9001:2000 and DIN EN ISO 14001:2005 (corresponds to EN ISO 14001 edition Nov. 2004).

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Swiss Ordinance 817.023.21
This ordinance regulates materials and articles intended to come into contact with food. On 01.04.2008 the ordinance was changed to include regulations concerning printing inks. Since 01.04.2010 only packaging which has been produced with conforming printing inks may be supplied to consumers. We urgently advise you to use for food packaging which is subject to this regulation only printing inks/lacquers which we specifically recommend for this application and which have a low-migration formulation.

Please note:
According to applicable law the manufacturer of the finished article and the filler have the full legal responsibility to ensure that their product is fit for its intended purpose and complies with the applicable rules (not the supplier).
Please also consider the relevant publications of the European Printing Inks Association EuPIA (http://www.eupia.org).

There are many types of final packaging and the printing ink/lacquer is only one constituent. Since the parameters in the printing, packing and storage processes are not under the control of the printing ink manufacturer, the printing ink suppliers are not able to issue certificates or declarations of compliance which cover the legal responsibility of the entire packaging chain (Text from EuPIA-PIFOOD May 2007).

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