

UV - Gloss Varnish



UVLG 1, UVLG 3, UVLG 4, UVLG 5, UVLG 6

Vers.3
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**UV - Gloss-Varnish for overprint
varnishing or spot-varnishing / surface
finishing**

**High gloss, universal, for industrial and
graphical applications**

Application

Overprint varnishing, full surface or spot varnishing of offset and screen prints onto paper, cardboard, paste board, and plastics after preliminary trials.

Attention: Some offset and screen printing inks contain levelling agents, waxes or anti-offset powder to receive a better ink drying. This may affect levelling or adhesion of the gloss varnish. Furthermore good drying of the offset ink (non bleeding of the colours) before the UV lacquer finish is vital as well as air humidity control in the printing room for good printed results.

Preliminary trials are necessary.

Since all the print substrates mentioned may be different in printability within an individual type, preliminary trials are essential to determine suitability for the intended use.

Characteristics

Ink characteristics

UV gloss varnish UVLG 1, UVLG 3, UVLG 4, UVLG 5 and UVLG 6 as far as viscosity and rheology are concerned press-ready, high gloss and flexible. All varnishes must be stirred homogeneously before printing.

Curing

A UV-curing unit with a mercury lamp (80-120 W/cm) will cure all UV varnishes.

Concerning reactivity and belt speed the varnishes vary as follows:

15 - 25 m: UVLG 1

20 - 35 m: UVLG 3, UVLG 4, UVLG 5,
UVLG 6

The curing speed of the ink is generally dependant upon the kind of UV-curing unit (reflectors), number, age, and power of the UV-lamps, the printed ink layer thickness, substrate in use, as well as belt speed of the UV-curing unit.

All UV-varnishes are cure within 24 h. In this period the adhesion to the substrate and the resistance improve.

Stress resistance

After proper and thorough drying, the ink film exhibits outstanding adhesion as well as rub, scratch, block, and high chemical resistance to solvents, alcohol, hand perspiration, water, and usual fillings.

Range

- UVLG 1:-
- high gloss
 - very flexible
 - not suitable for double sided prints
 - non-yellowing
 - speeds up to 1000 prints/h

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- UVLG 3
- high gloss
 - fast curing up to 2500 prints
 - low odour after curing
 - non-tacky surface
 - suitable for double sided prints
- UVLG 4:
- as UVLG 3, but lower viscosity
 - fast curing up to 3000 prints/h
- UVLG 5:
- especially for the offset-varnishing optimized with regard to the price
 - high gloss
 - very flexible
 - fast curing up to 3000 prints/h
 - non-tacky surface
 - suitable for double sided prints
- UVLG 6:
- high gloss, high transparency
 - dirt rejecting
 - non yellowing
 - high chemical resistance
 - fast curing up to 3000 prints/h

plain weave). The varnishes can also be printed with a thicker mesh, up to 120-34 threads. A uniform screen tension of all fabrics used is important to achieve good ink flow.

UV gloss varnishes can be processed with all commercially available stencil techniques such as capillary films (15-20 µm) or solvent-resistant photo emulsions. Mileage of one kg varnish is about 70-90 m² of printed surface according to mesh and substrate chosen.

Shelf life

Shelf life depends very much on the formula/reactivity of the ink system as well as the storage temperature. It is 1 year for an unopened ink, if stored in a dark room at a temperature of 15 to 25°C. Under different conditions, particularly higher storage temperatures, the shelf life is reduced. In such cases, Marabu's warranty expires.

Cleaners and Screen Cleaning

Cleaners UR 3 (flash point 42°C) or UR 4 (flash point 52°C) can be used. In the case of longer machine stops (> 30 min), it is important that the ink remaining in the screen open area is removed with UR 3/ UR 4 as otherwise it may dry in and clog the mesh.

Fabrics, stencil, mileage

We recommend to use a very fine mesh-sizes to receive a small ink film thickness, a mesh count between 150 – 27 to 185-27 threads (1:1

Labelling

For our UV gloss varnishes there are current Material Safety Data Sheets according to EC regulation 91/155 informing in detail about all relevant safety data including labelling according to the present EEC regulations as to health and safety data may also be derived from the respective label.

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Safety rules

UV gloss varnishes contain some substances which may irritate the skin. Therefore, we recommend to take utmost care when working with UV-curable screen printing inks. Parts of the skin dirtied with ink are to be cleaned immediately with water and soap.

Please pay also attention to the notes on labels and safety data sheets.

Note

Our technical advice whether spoken, written, or through test trials corresponds to our current knowledge to inform about our products and their use. This is not meant as an assurance for certain properties of the products nor their suitability for each application.

You are, therefore, obliged to conduct your own tests with our supplied products to confirm their suitability for the desired process or purpose. The selection and testing of the ink for specific application is exclusively your responsibility.

Should, however, any liability claims arise, such claims shall be limited to the value of the goods delivered by us and utilised by you with respect to any and all damages not caused intentionally or by gross negligence.