

LABITEX UV 472 S HB BF

Material Description:

UV polymerization gloss lacquer for obtaining of high-relief images by the method of flat screen printing on paper and cardboard, as well as on non-absorbent substrates: label paper, laminated cardboard, synthetic substrates (PP, PE, PVC, OPP, etc.). It can be used for rotary screen printing after preliminary tests. Modifications available with viscosity from 90 seconds and higher according to DIN 4. Contains silicone.

Physical characteristics:

Flash point:	> 100°C
Solid content:	100%
Viscosity (20°C):	250±20
Gloss (60°):	> 85
Slip angle:	Not applicable
Curing speed:	35 m/minute with lamp 60 W/cm (laboratory conditions)
Hot stamping:	Preliminary tests are required
Glueability (with special glue):	No
Overprinting:	No

Special material properties:

- ✓ Good gloss and high whiteness of varnish
- ✓ High image rise
- ✓ Clear edges of small elements

Substrate:

Paper	*	*** Perfect suitable
Cardboard	***	** Suitable
Non-absorbent substrates ¹	*	* Tests recommended
Treated non-absorbent substrates ¹	***	x Not suitable

¹Label paper, laminated cardboard and synthetic substrates (PP, PE, PVC, OPP and etc.)

Application:

Equipment: Flat screen print machine. Meshes 43-100 lines/cm are recommended. To achieve high rise of image is recommended to use meshes with double polymer layer. Varnishing on rotary screen-printing machine is required preliminary tests.

Machine mode: The machine should be adapted to work with the UV materials, including rollers and hoses. The lamps and reflectors should be clean and changed regularly in order to cure UV-varnish properly.

Varnish consumption: 4-15 g/m²(according to used mash). The rate is highly dependent from the absorbency of the substrate and screen meshes which are used.

Suitability of the UV coating for different UV curing dryers:

Hg ¹	O ₃ -free ²	Fe	Ga	LE-UV ³	LED 365	LED 395 ⁴
Yes	No	Yes	No	No	No	No

¹ standard medium pressure mercury UV lamp
² Ozone-free mercury UV lamp
³ Iron doped Ozone-free, like H-UV etc.
⁴ including LED-UV dryers with wave lengths 385 and 405 nm.

STIR COATING WELL BEFORE USE!

Prior tests are recommended before any commercial work. The information contained herein is based on our knowledge, true and correct. Any recommendations are made without guarantee, as the conditions of use are beyond our control. Our technical department may be contacted for further information. 1

UV COATINGS APPLICATION GENERAL GUIDELINE

- Application viscosity:** As supplied. It is possible to heat the UV coating to reduce the viscosity and improve the leveling (do not heat UV coating over 40°C). The viscosity is strongly depending on temperature.
- Polymerization:** Adequate UV curing is required for the coating. Cure speeds will be dependent upon film thickness, substrates and the type/condition of the UV curing equipment.
- Equipment clean-up:** Wash, suitable for UV coatings.
- Coating and inks:** It is not recommended to varnish oil based offset paints based on the following unstable pigments: Warm Red, Rhodamine, Purple, Purple, Blue Reflex, Blue 072. In this case, use special resistant colors.
- During the application on:**
- Inks, containing waxes or silicones;
 - Water-based and conventional OPV not designed as special primers.;
 - Prints, passed through infra-red dryers,
 - Other substrates with surface tension below 38 Dyn/cm.
- Could be problems with substrate wetting and adhesion.
The UV coating should be applied on thoroughly dried inks. In case of the conventional offset inks the thorough drying could takes 12-48 hours and more, depending on ink, substrate, film thickness and others printing settings.
- Prior tests are recommended!**
- Storage:** The recommended storage temperature is 18-22°C. Guaranteed shelf life is 12 months in closed original packaging. Avoid direct sunlight.
- Safe handling:** Avoid any contacts with skin and eyes. All works should be proceeded in the ventilated working area. For more information, please, see the MSDS

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Notes:

- All information provided in this Technical Data Sheet (TDS) including the recommendations for application is based on our current knowledge and experiences.
- The information about technical specifications (such as slip angle or reactivity) is based on our examinations under laboratory conditions and the mentioned values can differ from the practice.
- This document is provided for informational purposes only and do not release users from carrying out their own tests and trials.
- We reserve the right to change product properties according to the newest requirements of technical progress, amendments and additions to the list of restricted raw materials. These changes do not bring negative impact on the technical characteristics of the product.

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