

LABITEX UV 473 RS

Material Description:

UV glossy overprinting varnish glossy varnish for flatbed and rotary screen printing with improved adhesion for complex substrates as well as polycarbonate, treated polyolefins and flame activated glass.
Does not contain silicone additives.

Physical characteristics:

Flash point:	> 100°C
Solid content:	100%
Viscosity (20°C):	5000 +/- 500 cP Rheometer (Cone 2,5cm, 2°) at 20°C with 60sec
Gloss (60°):	>90
Slip angle:	Not applicable
Curing speed:	Not less than 50 m/minute with lamp 160 W/cm (laboratory conditions) depending from layer thickness
Hot stamping:	Yes
Glueability (with special glue):	Yes
Overprinting:	Yes

Special material properties:

- ✓ Good wetting of complex substrates
- ✓ UV curing is followed by a 12 hour post-cure phase when the film achieves the final adhesion and mechanical properties

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 140-180 lines/cm are recommended.
Rotary screen-printing machine is required mesh count as RotaPlate 355S, 305M Screeny HS, KS, S-line RSS, MTS

To achieve higher rise of image is recommended to use meshes up to 77 lines/cm with double polymer layer and RotaPlate RP125 Screeny EP, HV after preliminary tests.

Varnish consumption:

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	Yes	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.

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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.

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!**
- Ecology and safety:** For specific environmental/food compliance requirements, please contact our technicians for more information.
- Storage:** The recommended storage temperature is 18-22°C. 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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