

LABITEX UV 503

Product description:

Gloss UV – coating with high reactivity. Contains silicone.

Physical characteristics:

All measurements of the film properties are conducted using Baltink standard paper (GalerieArt Silk paper with basis weight 250g/m², brightness 100%, roughness 1.4µm, thickness 225µm), printed with offset inks Epple Druckfarben (CMYK system).

Viscosity (20°C):	40±5 (DIN-4)
Gloss (60°):	> 85 (ISO 2813:2015)
Slip angle:	< 5° (ISO 8295:2004)
Curing speed:	■■■■■ (80 m/min , in accordance with internal laboratory rules)
Hot stamping:	No
Glueability (special glue):	No
Overprinting:	No

Product features:

High reactivity.

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:	Offset press coating unit. Coating machine. Flexographic machine.
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.
Recommended varnish coat:	2-4 g/m ² , strongly depends on the absorbency of the substrate. For applying the varnish have to be used standard anilox engraved roll with a ceramic coating and a hexagonal open cell structure with the corresponding line count and cell volume.

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.

Version dated 05/05/2026.

BEFORE USE BE SURE TO STIR THE VARNISH FOR AT LEAST 15 MINUTES USING AN AUTOMATIC MIXING DEVICE.

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 depends 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.

**BEFORE USE BE SURE TO STIR THE VARNISH FOR AT LEAST 15
MINUTES USING AN AUTOMATIC MIXING DEVICE.**

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. These changes do not bring negative impact on the technical characteristics of the product.

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