

UV Thermoforming Ink

Series 150/2

Properties

Viscosity	25 °C	24 – 28 mPas
	50 °C	8 – 11 mPas
Surface tension	25 °C	20 – 22 dyn/cm
UV dose for hardening with an Hg lamp (type H)		500 mJ/cm ²

Colors

- Series 150/21100 white
- Series 150/21200 yellow
- Series 150/21300 magenta
- Series 150/21400 cyan
- Series 150/21800 black

Shelf life

- 9 months when stored between 15 and 35 °C

Package sizes

- 1 l PE bottles (black)
- 5 l PE cubitainer (black)
- Other package sizes are available on request.

Recommended cleaning and flushing fluid

TIGER Flush 151/00001

Applications

TIGER thermoforming inks are acrylate-based UV curing systems that can be used on flexible and rigid substrates. These inks were developed for use in DOD piezo printing heads.

The inks provide very good adhesion to a wide range of different plastic substrates such as plexiglass (PMMA), ABS, polyester, polycarbonate, vinyl, PVC, etc. To achieve good adhesion to polyolefins such as polyethylene or polypropylene, it must be subjected to a suitable pre-treatment (corona or flame treatment, etc.).

The inks have a very high ductility above the softening point. In thermoforming processes, elasticities of up to 700% can be achieved. The light fastness rating for all of the pigments used is 7 or better on the blue wool scale, making the pigments suitable for use on outdoor surfaces for 1 – 2 years.

Printing conditions

The inks can be processed at temperatures up to 55 °C. The UV dose required depends on the thickness of the printed layer, with the previously specified 500 mJ/cm² corresponding to the typical radiation dose of a non-doped mercury vapor lamp of type H with a layer thickness of 10 – 15 µm. Better hardening results can be achieved in special cases with doped UV sources (iron or gallium) since the UV radiation emitted covers a larger wavelength range.

Compatibility of materials

Compatible materials:

- PP
- PE (HD + LD)
- Stainless steel
- PTFE
- EPDM rubber

Incompatible materials:

- PVC
- Butyl rubber
- Brass
- Viton®
- Nitrile plastics
- Polyurethane rubber
- Neoprene

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