

## TIGITAL® Universal Ink Series 135

UV-CURING:		
SERIES 135/41000	UV-UNIVERSAL INK	PRIMER 1
SERIES 135/41001	UV-UNIVERSAL INK	PRIMER 2
SERIES 135/41101	UV-UNIVERSAL INK	WHITE
SERIES 135/41201	UV-UNIVERSAL INK	YELLOW
SERIES 135/41301	UV-UNIVERSAL INK	MAGENTA
SERIES 135/41401	UV-UNIVERSAL INK	CYAN
SERIES 135/41501	UV-UNIVERSAL INK	LIGHT CYAN
SERIES 135/41601	UV-UNIVERSAL INK	LIGHT MAGENTA
SERIES 135/41801	UV-UNIVERSAL INK	BLACK
SERIES 135/41111	UV-UNIVERSAL INK	GRAY
SERIES 135/41121	UV-UNIVERSAL INK	ORANGE
SERIES 135/41141	UV-UNIVERSAL INK	VIOLET

SERIES 135/61200	UV-UNIVERSAL INK	YELLOW
SERIES 135/61300	UV-UNIVERSAL INK	MAGENTA
SERIES 135/61400	UV-UNIVERSAL INK	CYAN
SERIES 135/61800	UV-UNIVERSAL INK	BLACK

SERIES 135/11200	UV-UNIVERSAL INK SP	YELLOW
SERIES 135/11300	UV-UNIVERSAL INK SP	MAGENTA
SERIES 135/11400	UV-UNIVERSAL INK SP	CYAN
SERIES 135/11800	UV-UNIVERSAL INK SP	BLACK

UV-LED CURING:		
SERIES 135/21100	4W-UV-LED UNIVERSAL INK	WHITE
SERIES 135/21200	4W-UV-LED UNIVERSAL INK	YELLOW
SERIES 135/21300	4W-UV-LED UNIVERSAL INK	MAGENTA
SERIES 135/21400	4W-UV-LED UNIVERSAL INK	CYAN
SERIES 135/21800	4W-UV-LED UNIVERSAL INK	BLACK

SERIES 135/31101	UV-LED UNIVERSAL INK	WHITE
SERIES 135/31201	UV-LED UNIVERSAL INK	YELLOW
SERIES 135/31301	UV-LED UNIVERSAL INK	MAGENTA
SERIES 135/31401	UV-LED UNIVERSAL INK	CYAN
SERIES 135/31501	UV-LED UNIVERSAL INK	LIGHT CYAN
SERIES 135/31601	UV-LED UNIVERSAL INK	LIGHT MAGENTA
SERIES 135/31801	UV-LED UNIVERSAL INK	BLACK
SERIES 135/31111	UV-LED UNIVERSAL INK	GRAY
SERIES 135/31121	UV-LED UNIVERSAL INK	ORANGE
SERIES 135/31141	UV-LED UNIVERSAL INK	VIOLET

SERIES 135/51100	UV-LED UNIVERSAL INK EP	WHITE
SERIES 135/51200	UV-LED UNIVERSAL INK EP	YELLOW

UV-LED CURING:		
SERIES 135/51300	UV-LED UNIVERSAL INK EP	<b>MAGENTA</b>
SERIES 135/51400	UV-LED UNIVERSAL INK EP	<b>CYAN</b>
SERIES 135/51800	UV-LED UNIVERSAL INK EP	<b>BLACK</b>
SERIES 135/71100	UV-LED UNIVERSAL INK	<b>WHITE</b>
SERIES 135/71200	UV-LED UNIVERSAL INK	<b>YELLOW</b>
SERIES 135/71300	UV-LED UNIVERSAL INK	<b>MAGENTA</b>
SERIES 135/71400	UV-LED UNIVERSAL INK	<b>CYAN</b>
SERIES 135/71500	UV-LED UNIVERSAL INK	<b>LIGHT CYAN</b>
SERIES 135/71600	UV-LED UNIVERSAL INK	<b>LIGHT MAGENTA</b>
SERIES 135/71800	UV-LED UNIVERSAL INK	<b>BLACK</b>
SERIES 135/71201	UV-LED UNIVERSAL INK	<b>YELLOW</b>
SERIES 135/71301	UV-LED UNIVERSAL INK	<b>MAGENTA</b>
SERIES 135/71401	UV-LED UNIVERSAL INK	<b>CYAN</b>
SERIES 135/71501	UV-LED UNIVERSAL INK	<b>LIGHT CYAN</b>
SERIES 135/71601	UV-LED UNIVERSAL INK	<b>LIGHT MAGENTA</b>
SERIES 135/71801	UV-LED UNIVERSAL INK	<b>BLACK</b>
SERIES 135/71102	UV-LED UNIVERSAL INK	<b>WHITE</b>
SERIES 135/71202	UV-LED UNIVERSAL INK	<b>YELLOW</b>
SERIES 135/71302	UV-LED UNIVERSAL INK	<b>MAGENTA</b>
SERIES 135/71402	UV-LED UNIVERSAL INK	<b>CYAN</b>
SERIES 135/71502	UV-LED UNIVERSAL INK	<b>LIGHT CYAN</b>
SERIES 135/71602	UV-LED UNIVERSAL INK	<b>LIGHT MAGENTA</b>
SERIES 135/71802	UV-LED UNIVERSAL INK	<b>BLACK</b>
SERIES 135/71203	UV-LED UNIVERSAL INK	<b>YELLOW</b>
SERIES 135/71303	UV-LED UNIVERSAL INK	<b>MAGENTA</b>
SERIES 135/71403	UV-LED UNIVERSAL INK	<b>CYAN</b>
SERIES 135/71803	UV-LED UNIVERSAL INK	<b>BLACK</b>
SERIES 135/71204	UV-LED UNIVERSAL INK	<b>YELLOW</b>
SERIES 135/71304	UV-LED UNIVERSAL INK	<b>MAGENTA</b>
SERIES 135/71404	UV-LED UNIVERSAL INK	<b>CYAN</b>
SERIES 135/71804	UV-LED UNIVERSAL INK	<b>BLACK</b>
SERIES 135/71105	UV-LED UNIVERSAL INK	<b>WHITE</b>
SERIES 135/71205	UV-LED UNIVERSAL INK	<b>YELLOW</b>
SERIES 135/71305	UV-LED UNIVERSAL INK	<b>MAGENTA</b>
SERIES 135/71405	UV-LED UNIVERSAL INK	<b>CYAN</b>
SERIES 135/71805	UV-LED UNIVERSAL INK	<b>BLACK</b>
SERIES 135/71106	UV-LED UNIVERSAL INK	<b>WHITE</b>
SERIES 135/71206	UV-LED UNIVERSAL INK	<b>YELLOW</b>
SERIES 135/71306	UV-LED UNIVERSAL INK	<b>MAGENTA</b>
SERIES 135/71406	UV-LED UNIVERSAL INK	<b>CYAN</b>
SERIES 135/71806	UV-LED UNIVERSAL INK	<b>BLACK</b>

SERIES 135/71107	UV-LED UNIVERSAL INK	WHITE
SERIES 135/71207	UV-LED UNIVERSAL INK	YELLOW
SERIES 135/71307	UV-LED UNIVERSAL INK	MAGENTA
SERIES 135/71407	UV-LED UNIVERSAL INK	CYAN
SERIES 135/71807	UV-LED UNIVERSAL INK	BLACK
SERIES 135/71108	UV-LED UNIVERSAL INK	WHITE
SERIES 135/71208	UV-LED UNIVERSAL INK	YELLOW
SERIES 135/71308	UV-LED UNIVERSAL INK	MAGENTA
SERIES 135/71408	UV-LED UNIVERSAL INK	CYAN
SERIES 135/71808	UV-LED UNIVERSAL INK	BLACK
SERIES 135/71008	UV-LED UNIVERSAL INK	PRIMER
SERIES 135/72008	UV-LED UNIVERSAL INK	PRIMER/VARNISH

## Properties

Viscosity	25 °C	9 – 35 mPas
	50 °C	3 – 13 mPas
Surface tension	25 °C	22 – 28 dyn/cm

## Shelf life

9 months for storage between 15 and 35 °C

### Series:

- 135/2.0
- 135/3.1
- 135/4.1
- 135/5.0
- 135/6.0
- 135/7.0
- 135/7.1
- 135/7.3
- 135/7.4
- 135/7.5
- 135/7.6
- 135/7.7
- 135/7.8

12 months for storage between 15 and 30°C

### Series:

- 135/7.2

## 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 Universal Inks are UV curing or UV-LED curing depending on the series. They are acrylate-based 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 on a wide range of substrates such as metal, wood, paper and many different plastic substrates such as plexi-glass (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.).

These products represent an ideal compromise between surface hardness and elasticity and are suitable for use in outdoor applications when applied to a suitable substrate. 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.

These primers are suitable for use on a wide range of plastics, paints and rigid materials such as glass, metal and wood

## Printing and curing conditions

The inks can be processed at temperatures up to 50 °C.

### UV curing series:

The UV dose required depends on the thickness of the printed layer, with the previously specified 500 – 750 mJ/cm<sup>2</sup> corresponding to the typical radiation dose of a non-doped mercury vapor lamp of type H with a layer thickness between 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.

### UV-LED curing series:

Use the layer thickness of the print coat as a guide for determining the UV dose required; the dose of 750 – 1000 mJ/cm<sup>2</sup> specified above corresponds to the typical radiation dose from a 8W UV-LED with a peak emission of 395 nm UV-LED on a layer thickness of 10 – 15 µm. With series 135/2.0, 135/7.3, 135/7.4 and 135/7.5 you can also use a 4W UV-LED for curing, as long as you comply with the dose above.

## Compatibility of materials

### Compatible materials:

- PP
- PE (HD + LD)
- Stainless steel
- PTFE
- EPDM rubber
- Plasterboard box
- MDF sheets
- Particle boards
- Aluminum boards
- .....

### Incompatible materials:

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

## Disclaimer

Our verbal and written recommendations for the use of our products are based upon experience to the best of our knowledge in accordance with present technological standards. These are given in order to support the buyer or user. They are non-binding and do not constitute any contractual legal relationship or additional obligation from the purchase agreement. They do not release the purchaser from verifying the suitability of our products for the intended application at his own responsibility. We warrant that our products are free of flaws and defects to the extent as stipulated in our Terms of Delivery and Payment.

As part of our duty to inform, we modify our product information periodically according to technical progress. Therefore, please visit the download area of [www.tiger-coatings.com](http://www.tiger-coatings.com) to make sure you have the most current version of this Product Data Sheet. TIGER Coatings GmbH & Co. KG reserves the right to make changes to the Product Data Sheet without written notification.

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**Our technical notes and the general Terms of Delivery and Payment, the most recent version of which you can call up at any time at [www.tiger-coatings.com](http://www.tiger-coatings.com) in the download area, are an integral component of this data sheet.**

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EN ISO 9001 / 14001



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