

# Product Data Sheet

# Screen Printing Ink

## TL FLUORESCENT INKS

### Solvent Based Screen Ink Range, 1-Component

#### APPLICATION

Screen printing inks for printing fluorescent colour shades (daylight fluorescence) on paper, paperboard, cardboard, thermoplastics, mainly polystyrene (PS) and PVC.

#### PROPERTIES

- Screen inks TL are solvent based, physically drying 1-component screen printing inks.
- The ink system shows good printability, quick drying and results in a matt finish.
- Note: A characteristic of all fluorescent pigments is their transparency. The inks have to be printed on white surfaces.
- Note: Due to their high pigmentation, compared to other coloured inks TL inks may sometimes show deviating properties concerning adhesion on substrates or overprintability with other inks.
- Note: Fluorescent pigments used for daylight fluorescent inks only have a limited light fastness. Under the influence of intensive sun light (UV-radiation) they may fade within a short period of time. Therefore, TL prints are only suitable for indoor use or very short-term outdoor applications.
- Note: Due to the special characteristics of fluorescent inks, pre-tests are always essential.

#### COLOUR SHADES - OVERVIEW

- Fluorescent colours: 90 range 7 fluorescent colour shades.
- Special colour shades are available upon request.
- More information about available colour shades in the detailed tables in section Colour Shades.

#### CHOICE OF PIGMENTS AND LIGHT FASTNESS

Fluorescent pigments for daylight fluorescent inks only have a limited light fastness. Under the influence of intensive sunlight (UV-radiation), they may fade within a short period of time.

Therefore, TL prints are only suitable for indoor use or very short-term outdoor applications.

#### ADJUSTMENT FOR SCREEN PRINTING

- Screen printing inks TL are not supplied in a ready-to-print adjustment.
- Depending on local conditions the ink is adjusted for printing by addition of 10 to 20 % by weight thinner or retarder (stir with mixer, agitator).
- Prior to printing, the inks should be stirred well to obtain a homogeneous dispersion of all ingredients.

**THINNERS / RETARDERS**

For adjustment of screen inks TL, the following products are available:

<b>Thinner:</b>	<input type="radio"/> VD 20	Very quick thinner, good solving power
	<input checked="" type="checkbox"/> VD 50	<b>Standard thinner</b>
	<input checked="" type="checkbox"/> VD 60	<b>Standard thinner (mild odour)</b>
<b>Retarder:</b>	<input type="radio"/> VZ 10	Quick retarder
	<input checked="" type="checkbox"/> VZ 20	<b>Medium retarder</b>
	<input type="radio"/> VZ 40	Very slow retarder

■ = Preferred      ○ = Suitable

Depending on printing conditions, the products listed above can be mixed into the inks individually or as mixtures. Please note that depending on evaporation rate of the thinner/retarder used drying times may be longer.

Thinner/retarder should be mixed into the ink thoroughly using a mixer or agitator. In addition, inks should be stirred well prior to each processing to obtain a homogeneous dispersion of all ingredients.

**ADDITIONAL AUXILIARY AGENTS**

Application	Product	Addition in % by weight	Additional Information
Retarder paste	VP/K	Max. 10%	
	LAB-N 111420/VP	Max. 10%	
Viscosity increase	Thickening powder	Max. 3%	Stir with mixer
Flow agent	VM 2	0.3 - 0.5%	Do not overdose!

**OVERPRINTING**

TL inks can be overprinted with colour shades of our ink ranges J and HG:

Generally, it is not necessary to overprint TL inks with varnish. Basically overprinting is possible with J/E50 and HG/E50.

Note: Due to their high pigmentation, compared to other coloured inks TL inks may sometimes show deviating properties in regard to adhesion on substrates or overprintability with other inks. Pre-tests are essential.

**BRONZE COLOURS**

Not available in TL ink range.

**DRYING**

TL screen printing inks dry physically, i.e. by evaporation of solvents.

Drying times below are only approximate as drying properties depend on various factors:

- Type and amount of thinners/retarders used.
- Thickness of printed ink layer; number of overprinted ink layers.
- Rack drying or tunnel dryer.
- Temperature, air supply, speed of air stream.
- Type of substrate/material printed.

Depending on local conditions, drying time in a drying frame (rack) is approx. 5 - 10 minutes at room temperature (20°C). Drying time using an efficient tunnel dryer (e.g. 2 hot air and 1 cold air section) is about 30 - 60 seconds at a temperature of 50°C.

Note: Addition of retarders may result in much longer drying times!

**SCREEN FABRIC / STENCILS**

TL inks have been formulated for printing with fabrics ranging from 61 to 120 threads/cm.

In order to obtain best-possible fluorescent effect printing with a coarse fabric, e.g. 77 threads/cm or double printing is recommended.

Suitability for printing with coarser or finer fabrics should be determined by corresponding pre-trials.

All copy emulsions and capillary films suitable for solvent based screen inks can be used, such as our program of SunCoat or Murakami products.

**CLEANING**

Stencils and tools can be cleaned with our universal cleaning agents URS or URS 3.

**PACK SIZE**

Screen printing inks TL are delivered in 1 litre containers. Other pack sizes are available upon request.

**SHELF LIFE**

In closed original containers, TL inks generally have a shelf life of 2 years from date of production. For exact date of expiry, please refer to the label.

**SAFETY DATA SHEETS**

Read safety data sheet prior to processing

Safety data sheets comply with Regulation (EC) No. 1907/2006 (REACH), Appendix II.

**CLASSIFICATION AND LABELLING**

Hazard classification and labelling comply with Regulation (EC) No. 1272/2008 (CLP/GHS).

**CONFORMITY**

Coates Screen Inks GmbH does not use any of the substances or mixtures for the production of printing inks, which are banned according to the EUPIA (European Association of the Printing Inks Industry) exclusion policy. Further compliance confirmations are available upon request.

**ADDITIONAL INFORMATION ABOUT OUR PRODUCTS**

Product data sheets: Auxiliary Agents for Screen Printing HM

Brochures: Solvent Based Screen Printing Inks

Internet: Various technical articles are available for download on [www.coates.de](http://www.coates.de), section "SN-Online", e.g. fluorescent inks (Colour Management)

**FOR COLOUR RANGES PLEASE REFER TO NEXT PAGE.**

**COLOUR SHADES**

<b>Colour Range „90“ Fluorescent Colour Shades</b> According to colour card TL					
yellow	TL 90	red	TL 93	blue	TL 99
yellow orange	TL 91	pink	TL 94		
orange	TL 92	green	TL 95		

**Matching of PMS, RAL, NCS fluorescent colours and special shades upon request.**

**In some individual cases the product characteristics of special colour shades and modifications of this ink type manufactured upon customer request may differ from the above properties.**

*The statements in our product and safety data sheets are based on our present experiences, however they are no assurance of product properties and do not justify a contractual legal relationship. We provide these details to inform customers about our products and their possible applications. However, on account of various factors influencing processing of our products it is absolutely essential to carry out printing trials under local production conditions. Choice of individual ink types and their suitability for the intended application is the sole and entire responsibility of the user. We do not assume any liability for any problems of technical or process-related nature. Any liability shall be limited to the value of the goods delivered by us and processed by the user.*

*All former product data sheets are no longer valid.*

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**Coates Screen Inks GmbH**  
Wiederholdplatz 1 90451 Nürnberg  
Tel.: 0911 6422 0 Fax: 0911 6422 200  
<http://www.coates.de>