

## Series 382

### 1- component printing ink

### Laminable, silky gloss PVC screen printing ink for technical and graphic applications.

#### Overview

A good covering screen printing ink suitable for many plastic materials, especially PVC substrates. Series 382 is suitable for the production of many card systems (eg credit cards) produced using laminated/multi layer techniques.

An excellent fast drying pad printing ink for stress toys. It runs well in a pad printer and is easy to work with, giving good ink coverage and colour even on dark substrates. It's also ideal for pad printing ID and loyalty cards and produces a very durable print on many of the budget-price plastic pens.

#### Substrates

Series 382 was developed specifically for printing on PVC substrate used in laminating and welding manufacturing process, but is also suitable for a wide range of substrates such as rigid and flexible PVC, PVC adhesion foils, coated polyester, paper and boxboard, and many coatings.

The wide variety of printable materials makes it absolutely necessary to undertake your own tests under local conditions with regard to the printed products intended use to determine ink suitability prior to production.

**Due to the wide variety of materials and their many modifications we recommend print tests under local conditions with regard to the intended application prior to production.**

#### Applications

Series 382 is suited to most point-of-sale and industrial use on labels and stickers, sign printing and applications in the security area for the production of check and identity cards, credit and telephone cards.

The binder composition allows a laminating or welding under high temperature without destroying the ink layer. Care should be taken with use on self adhesive foils or outdoor applications because of the plasticisers in the material. As the material ages and shows fluctuations in different areas, the ink-substrate bond may be adversely affected - you should carry out your own tests to determine suitability for use on long-term projects under local conditions.

The quality of raw materials used in formulating Series 382, together with the recommended hardener (Series 600-HDA or 600HDR) make it suitable external use or where greater mechanical and chemical resistance is required.

#### Characteristics

This ink has been developed to give excellent flow and open screens, ensuring high quality printing of both line and fine copy details on hand, flatbed machines and on cylinder printing presses. The recommended solvents (Series 300-017, 300-019) will maintain the inks characteristics of openness and self solvency, as well as quick drying of printed substrates.

#### Additives

For optimum printing a reduction of 15-20% by weight with universal thinners Series 300-017, should give consistency of print and good working viscosity under normal conditions. Rotary printing requires thinning with Series 300-019 at approximately 20-30% by weight. For optimal printing under more extreme conditions, please refer to the technical sheet "Series 300 Screenprinting Additives".

Note that aggressive hardeners can cause 'chapping' of the ink layer in extreme cases and a worsening of adhesion as a result. When using any additives care should also be taken to ensure that print stability is not compromised.

#### Pigments

With the future tightening of environmental and health standards in mind, Series 382 is heavy metal free and mono-pigmented. This also means that in many cases pre-printing with white to achieve the desired colour shade is mostly not always necessary. A wide range of high-density (opaque) colour shades are available to cover practically the full colour chromatic spectrum:

Series 382-1000	MS - light yellow
Series 382-1200	MS - dark yellow
Series 382-2000	MS - orange
Series 382-3000	MS - red
Series 382-7000	MS - red/brown

Series 382-8000	MS - black
Series 382-9000	MS - white

In addition to these opaque shades there are also 8 highly pigmented transparent shades included in the PMS mixing system, and can be used for attractive results mixed with metallic shades:

Series 382-1100	MS - medium yellow
Series 382-3100	MS - transparent red
Series 382-3200	MS - transparent dark red
Series 382-3300	MS - magenta
Series 382-4000	MS - violet
Series 382-5000	MS - blue
Series 382-6000	MS - green
Series 382-0900	MS - Ultramarine (NB: not light-fast)

The transparent inks are suitable for colour adjustment whilst keeping their brilliance, and can also be tinted with metallic inks.

FOR MAXIMUM MECHANICAL AND CHEMICAL RESISTANCE A BLEND OF AT LEAST 20% BY WEIGHT OF BINDER 382-07 (OR 382-06/-05/-07) SHOULD BE USED.

The process colours for 4-colour halftone prints are ready to print and follow the European scale;

Series 382-0950	MS-Cyan
Series 382-0960	MS-Yellow
Series 382-0970	MS-Magenta
Series 382-0980	MS-Black

A range of standard metallic colours are also available;

Series 382-100	Silver
Series 382-101	Silver, Brilliant
Series 382-102	Gold, Light
Series 382-103	Gold, Standard

Blending pastes and lacquer include;

Series 382-04	Extender Base
Series 382-06	Retarder Gel
Series 382-07	Binder Paste
Series 382-05	Gloss Lacquer
Series 382-05-MT	Matte Lacquer

If Series 382 is for exterior applications we Printcolor recommends overprinting with a special lacquer from the Series 356-5700 for best non-fade properties, this combination gives unsurpassed results for a solvent based one component ink system.

All Series 382 inks are non toxic and follow the European Regulation EN71, Part 3 (Safety of toys, migration of certain elements) and are heavy metal free. With the exception of MS0900 Ultramarine and fluorescents all pigments in Series 382 show a light fastness of 6-8 according to the wool scale (DIN 16525). Care should be taken with white or clear lacquer as discolouration may occur under strong lighting conditions

### Drying

The composition of universal thinner Series 300-017 is specially formulated to stay open in the screen so retarders are not usually necessary. Series 382 still has quick drying properties which can be accelerated using hot air jets or infra-red lamps.

### Screen/Cliche

Series 382 is suitable for use with all usual meshes and capillary films. 77-75 Y PW PET 100 up to 120-34 Y PW PET 1000 (maximum 43-80 Y PW PET 1000)

### Cleaning

Series 382 can be cleaned using most solvent based cleaners, including Solva-Wash 700-URT.

**Storage**

Under normal conditions (limited change of temperature, medium temperature 20-35°C, humidity 20-70%) we guarantee a shelf life of 24 months from manufacture date and 12 months for metallics. Metallic colours are mixed to order to ensure you get the maximum shelf life from your inks.

**Packaging**

Series 382 is available in 500gm and 1kg polyethylene containers.

**Precautionary Measures**

Read the Material Safety Data Sheet (MSDS) prior to processing. The MSDS contain indications of hazardous ingredients, TLV-level and instructions for precautions when processing, handling and storing as well as first aid. The information given in the MSDS refers to processing as described in this technical leaflet. The statements in these leaflets have been made to the best of our knowledge and are given without any obligation. These Technical Sheets serve to advise, but it is absolutely

necessary to undertake your own printing tests under local conditions with regard to intended purpose prior to starting the printing job. The application, use and processing of the products delivered by Colour Components are beyond our control and imply no liability or guarantee on our part. Issue 1; 04/06

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## Printcolor screen printing ink lines Series 382

fulfils following regulation (1) / is free of (2)

- (2) Heavy metals according to DIN EN 71, part 3
- (2) Heavy metals according to ASTM Standard F 963 (2003)
- (2) Chlorinated organic compounds (f.e. PCB, PCN, chlor. paraffins, other chlorinated org. compounds; blue and green contain phthalocyanine pigments)
- (2) Listed Azo compounds
- (2) Tin (Sn) and silver (Ag) and such alloy's
- (2) Formaldehyd (exception: fluorescent colors)
- (2) Vinyl chlorid or monomeric VC
- (2) Diisononyl Phtalate; n-Butylacetate; Toluene diisocyanate
- (1) EU-Richtlinie 2002/95/EG (Restriction of Hazardous Substances / RoHS)
- (1) EU-Richtlinie 2002/96/EG (Waste Electrica and Electronic Equipment amending / WEEE)
- (1) EU-Richtlinie 2005/84/EG (Phthalates in toys and baby articles)
- (1) EU-Richtlinie 2003/11/EG (Brominated organic compounds, f. e. PBB, TBBP-A-bis, Pbdiphenylethers)
- (1) Verordnung (EG) Nr.1907/2006 (Reach – including SVHC: CMR, PBT, vPvB – October 2008)
- (1) DIN 53160 (Saliva and sweat resistance test of coloured toys)
- (1) 5<sup>th</sup> Alteration of "Bedarfsgegenständeverordnung" (engl. Consumer goods regulation)
- (1) EU-Richtlinie 2000/53/EG („Altfahrzeuggesetz“)
- (1) SS-002259 (free of listed materials)

Member of IMDS / IMDS-ID 9448512

SONY Green Partner since 2003

May 6, 2009  
Printcolor Screen Ltd.

# CERTIFICATE



Richard Gähwiler  
HSE Manager



Dieter Hermann  
CEO

**CH-8965 Berikon, 14th February 2012**

## **REACH - SVHC**

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**We herewith confirm that all raw materials used by Printcolor Screen Ltd. for production are**

- **pre-registered with respect to REACH-conformity**
- **not chemically modified during the manufacturing process**
- **conform to the threshold values of the ECHA SVHC Candidate List (December 2011) – excluding the waterbased Series 420 – they still contain small amounts (<3%) of 1-Methyl-2-pyrrolidone, CAS-No. 872-50-4.**

**Printcolor Screen Ltd. CH-8965 Berikon (Schweiz)**

[www.printcolor.ch](http://www.printcolor.ch)

14-02-2012

**Printcolor Screen Ltd.**



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