

Product Data Sheet

Screen Printing Ink

CC

Solvent Based Screen Ink Range, 1-Component

APPLICATION

Laminable screen printing inks for printing on rigid PVC, used for the production of credit and ID cards. Applied on rigid and plasticized PVC CC inks are also suitable for welding applications.

PROPERTIES

- Screen inks CC are solvent based, physically drying 1-component screen printing inks. CC inks do not contain silicone.
- CC inks result in a high gloss finish.
- CC prints on rigid PVC are suitable for laminating.
- Note: As this is quite a complex application (lamination/plastic cards) pre-tests to verify suitability are essential.

COLOUR SHADES - OVERVIEW

- Mixing System: C-MIX 2000 12 colour shades for mixing of RAL, PMS and HKS colours.
- Bronzes: Metal Gloss 5 gold and silver colours
- 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

Colour shades of CC ink range contain pigments with a high light fastness. Light fastness and weather resistance will reduce if thinner layers are applied or if base colours are mixed with a high ratio of white or varnish.

Applied on suitable substrates screen printing inks CC are suitable for outdoor applications.

ADJUSTMENT FOR SCREEN PRINTING

- Screen printing inks CC are not supplied in a ready-to-print adjustment.
- Depending on local conditions the ink is adjusted for printing by addition of 10 to 15 % 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 CC, the following products are available:

Thinner:	■ VD 30	Standard thinner, quick	
	○ JVH	medium thinner	➔ low addition (<5%)
Retarder:	○ VZ 20	Medium retarder	➔ low addition (<5%)
	○ VZ 40	Very slow retarder	➔ low addition (<5%)
	■ = 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.

Note: JVH and mainly VZ 20 and VZ 40 contain solvents with a very slow evaporation rate. However, for laminating applications the printed ink layer/s must be free of any solvent residues. Therefore, efficient and complete drying of the inks is an essential requirement!

ADDITIONAL AUXILIARY AGENTS**Not available.****OVERPRINTING****Not required.****BRONZE COLOURS, MIXING OF BRONZE INKS**

CC bronze colours (gold and silver colours) only have a very limited shelf life. Therefore, these colours are generally delivered separately. These two components should only be mixed prior to printing.

Component A contains the binder (coloured), component B contains the silver pigment.

Mixture of 88 parts : 12 parts will result in the required gold or silver shade.

Component A (Binder)	Component B (Bronze)		Colour Shade
88 Parts	12 Parts		
CC 75/A-NT	+	B 79/16	= CC 75/NT (rich gold)
CC 76/A-NT	+	B 79/16	= CC 76/NT (rich pale gold)
CC 77/A-NT	+	B 79/16	= CC 77/NT (pale gold)
CC 78/A-NT	+	B 79/16	= CC 78/NT (copper)
CC 79/A-NT	+	B 79/16	= CC 79/NT (silver)

Mixing ratios in parts by weight

To enhance laser marking properties, bronze content may be reduced by approx. 10%.

Generally mixed bronze colours can be processed within a period of 1 – 3 months.

DRYING

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

Drying times below are only approximate as drying times 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 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 25 - 35 seconds at a temperature of 50°C.

Note: Addition of JVH, VZ 20 and/or VZ 40 may result in much longer drying times!

SCREEN FABRIC / STENCILS

CC inks have been formulated for printing with fabrics ranging from 77 to 120 threads/cm. 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 CC are delivered in 1 litre containers. Other pack sizes are available upon request.

SHELF LIFE

In closed original containers, CC inks generally have a shelf life of 3 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, section "SN-Online"

COLOUR SHADES

C-MIX 2000 BASE COLOUR SHADES Mixing system for matching of PMS, HKS, RAL colours (on white substrates) Start formulations available in data base „Formula Management C-MIX 2000“ According to colour card C-MIX 2000					
primrose	CC/Y30	red	CC/R50	green	CC/G50
golden yellow	CC/Y50	magenta	CC/M50	black	CC/N50
orange	CC/O50	violet	CC/V50	white	CC/W50
scarlet	CC/R20	blue	CC/B50	varnish	CC/E50
METAL GLOSS INKS Only available as two separate components. Have to be mixed prior to processing. See section Bronze Colours for components and mixing ratios. Colours according to Bronze Colour Card					
Rich gold	CC 75/NT	Pale gold	CC 77/NT	Silver	CC 79/NT
Rich pale gold	CC 76/NT	Copper	CC 78/NT		

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

All above information refers to the colour shades listed in this product data sheet and other standard shades of this screen ink range. Information about availability of further standard 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>