



Coates Screen

# Product Data Sheet

## SCREEN PRINTING INKS PF

### APPLICATION

Screen printing inks PF are special inks for printing onto difficult substrates such as polyester, diacetate and triacetate foils, polyamide and pretreated polyolefines (polyethylene, polypropylene).

Not for rigid and plasticized PVC.

PF inks are often used for printing onto overhead diapositives (380 series).

PF inks are not suitable for long-term outdoor use.

### CHARACTERISTICS

Special inks PF show a glossy finish and excellent adhesion on the recommended surfaces. They show good opacity and are also available in range of transparent colours.

### PIGMENTS AND LIGHT FASTNESS

PF inks are available in opaque as well as highly transparent shades. For technical reasons and to maintain high brilliance it could not be avoided to use soluble colorants for the production of PF 380 (transparent yellow), 381 (transparent red) and 385 (transparent orange). These soluble colorants show a lower light fastness and a tendency to bleed when overprinted with another shade, f.e. white. Other highly transparent shades for the production of projection foils (overhead) can be manufactured subject to our special ink shade regulation.

The colour shades of PF-NT and PF C-MIX-2000 inks show heavy-metal free pigmentation and correspond to the requirements of EN 71, part 3, safety of toys, migration of certain elements.

### ADJUSTMENT FOR SCREEN PRINTING

In order to adjust the proper printing consistency the following thinners can be used for both ink types:

<b>Thinner VD 10</b>	(for manual screen printing)
<b>Thinner XVH</b>	(for machines printing)
<b>Retarder VZ 10, VZ 20, VZ 30</b>	(for fine details)

### DRYING

Screen printing inks PF are air-drying, i.e. they dry by evaporation of solvents. Drying time is approx. 10-25 min. at room temperature.

Shorter drying times can be achieved in a belt dryer. These will depend on substrate, belt speed, temperature etc. Multilayer prints will take longer to dry.

### BRONZE INKS

For printing of metallic decorative inks the bronze pastes are mixed with bronze binder PF/B prior to processing.

Mixing ratios (parts by weight) should be:

Gold bronze paste:	PF/B	=	1 : 3-4
Silver bronze paste:	PF/B	=	1 : 4-5

If bronze inks have to be overprinted we recommend to add an additional 10-30% by weight bronze binder PF/B to the gold bronze mixtures. In all cases it is essential to check overprintability!

Due to the influence of humidity and oxidation components in the air, bronze prints tend to oxidise. Especially gold, copper and bronze prints will then be unattractive. Overprinting the bronze screen print will delay this oxidation process for some time. Mixed bronzes must be processed soon after mixing because they have a limited shelf life.

#### **CLEANING OF STENCILS AND TOOLS**

Screen printing inks PF can be removed from stencils and tools using universal cleaning agent URS.

#### **PACKING**

Screen printing inks PF are available in 1 and 5 liter containers.

#### **SHELF LIFE**

For information regarding shelf life please see tin label.

#### **CLASSIFICATION**

Read material safety data sheets prior to processing.

The material safety data sheets according to Regulation (EC) No. 1907/2006 contain classification according to preparations directive (1999/45/EC) as well as instructions for precautions when processing, handling and storing as well as first aid.

The information given in the material safety data sheet refers to processing as described in this product data sheet.

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<b>STANDARD SHADES</b>			
citric yellow	PF 10/NT	blue violet	PF 36/NT
medium yellow	PF 11/NT	light green	PF 40/NT
light orange	PF 14/NT	fir green	PF 41/NT
light red	PF 20/NT	dark brown	PF 51/NT
red bright	PF 21/NT	white	PF 60/NT
carmine red	PF 22/NT	white, highly opaque	PF 60/HD-NT
light blue	PF 30/NT	black	PF 65/NT
ultra marine	PF 32/NT	black, highly opaque	PF 65/HD-NT
dark blue	PF 33/NT		
<b>PROCESS COLOURS ACCORDING TO EUROPE SCALE</b>			
yellow	PF 180/NT		
red	PF 181/NT		
cyan	PF 182/NT		
<b>C-MIX 2000 BASE COLOURS</b>			
primrose	PF/Y30	violet	PF/V50
golden yellow	PF/Y50	blue	PF/B50
orange	PF/O50	green	PF/G50
scarlet	PF/R20	black	PF/N50
red	PF/R50	white	PF/W50
magenta	PF/M50	varnish	PF/E50
<b>TRANSPARENT INKS</b>			
yellow	PF 380/NT	violet	PF 383/NT
red	PF 381/NT	green	PF 384/NT
blue	PF 382/NT	orange	PF 385/NT
<b>SPECIAL INKS</b>			
transparent paste	PF/TP	bronze binder	PF/B

*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. They serve to advise our business associates, but it is absolutely necessary to make your own printing tests under local conditions, with regard to the intended purpose prior to starting the job. - All former product data sheets are no longer valid. APRIL 2008 – VERSION No. 3*

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