



Coates Screen

# Product Data Sheet

## UV-CURING PAD PRINTING INKS TP/UV-R

### APPLICATION

UV-curing pad printing ink range TP/UV-R is suitable for printing onto rigid and plasticized PVC, polycarbonate, polyester, polyamide, duroplastics, coated surfaces and various polystyrene modifications.

Due to the different properties of printing materials, even within the same material range, printing tests are absolutely necessary.

### PROPERTIES

UV-curing pad printing inks TP/UV-R show good printability even if printing speed is high and the plates used are deeply etched. Chemical resistance is good. They also show a very good abrasion resistance.

### COLOUR SHADES

The colour shades of the TP/UV-R range show heavy metal free pigmentation and correspond to EN 71, part 3, safety of toys, migration of certain elements.

### AUXILIARY AGENTS

Printing consistency is adjusted with 10-20% thinner.

Thinner	<b>Additive A</b>
	<b>Additive B</b>
	<b>Additive C</b>

For retardation use TPD. If retarder TPD is too slow, also thinner VD 60 can be used as retarder.

### UV-CURING

Pad printing inks TP/UV-R only cure under UV-radiation of suitable wavelength and intensity. Drying parameter depend on layer thickness, colour and substrate.

Curing energy should be between 500 and 2000 mJ/cm<sup>2</sup>. Further processing and stacking of the prints can be carried out immediately after drying, however maximum chemical and abrasion resistance will only be achieved after a period of 24 hours.

### CLEANING

Pad printing inks TP/UV-R can be removed from clichés and tools using thinner VD 40 or Cliché Spray.

### PACKING

TP/UV-R inks are available in 1 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 technical leaflet.

<b>STANDARD SHADES</b>											
white	TP/UV-R 60										
black	TP/UV-R 65										
<b>PROCESS COLOURS ACCORDING TO EUROPE SCALE</b>											
yellow	TP/UV-R 180										
magenta	TP/UV-R 181										
cyan	TP/UV-R 182										
<b>C-MIX 2000 BASE COLOURS</b>											
primrose	TP/UV-R-Y30	violet	TP/UV-R-V50								
golden yellow	TP/UV-R-Y50	blue	TP/UV-R-B50								
orange	TP/UV-R-O50	green	TP/UV-R-G50								
scarlet	TP/UV-R-R20	black	TP/UV-R-N50								
red	TP/UV-R-R50	white	TP/UV-R-W50								
magenta	TP/UV-R-M50	varnish	TP/UV-R-E50								
<b>BRONZE INKS</b>											
<p>Bronze pastes and powders B 75 to B 79 are available for printing of silver and gold colour shades.</p> <p>The bronze pastes are mixed with the corresponding varnish TP/UV-R-E50 prior to processing.</p> <p>Gold and silver bronzes are metal pigments which may react with the pH-acidic UV components. Therefore mixed bronze inks should be processed quickly (pot life of approx. 24 hours).</p> <p>Mixing ratios (parts by weight) are as follows:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Gold bronze paste</td> <td style="width: 30%;">: TP/UV-R-E50</td> <td style="width: 30%;">1:3</td> <td style="width: 10%;"></td> </tr> <tr> <td>Silver bronze paste</td> <td>: TP/UV-R-E50</td> <td>1:4</td> <td></td> </tr> </table>				Gold bronze paste	: TP/UV-R-E50	1:3		Silver bronze paste	: TP/UV-R-E50	1:4	
Gold bronze paste	: TP/UV-R-E50	1:3									
Silver bronze paste	: TP/UV-R-E50	1:4									

*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. 4*

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