



Coates Screen

Product Data Sheet

PAD PRINTING INKS TP/UV-D

APPLICATION

TP/UV-D is a UV-curing dual curing pad printing ink which was especially developed for printing of golf balls, also of unprinted ones. However, also ABS, SAN, polystyrene, polycarbonate and other substrates can be printed.

Pre-tests are absolutely necessary!

PROPERTIES

TP/UV-D inks are glossy, show good opacity, high chemical and outdoor resistance as well as an excellent abrasion resistance. TP/UV-D cures in two different ways:

1. Radical curing by UV-radiation
2. Chemical curing by addition of isocyanate hardener TP 219/N.
Mixing ratio ink : hardener = 8:1

Following the radical curing there will be chemical curing by formation of polyurethane structures. Due to this double-curing the resulting good prints show excellent properties.

CURING

Pad printing inks TP/UV-D cure under UV-radiation of suitable wavelength and intensity as well as by addition of hardener TP 219/N. Drying parameter depend on layer thickness, colour and substrate.

Curing energy should be between 500 and 1000 mJ/cm². When adding hardener TP 219/N pot life is 18 hours.

UV-curing pad printing inks TP/UV-D can also be processed without hardener, however then chemical and mechanical resistances will be reduced.

Maximum chemical and abrasion resistance will be achieved after a period of 24 hours.

COLOUR SHADES

Printing inks by Coates Screen Inks GmbH correspond to the requirements of the respective current version of the EUPIA exclusion list. Pigments and other compounds based on antimony*, arsenic, cadmium, chromium(VI), lead, mercury and selenium are not used.

*see footnote in EUPIA list

ADJUSTMENT

Printing consistency is adjusted with 10-20% thinner.

Thinner	Additive A
	Additive B
	Additive C

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

CLEANING

Pad printing inks TP/UV-D can be removed from clichés and tools using thinner VD 40.

PACKING

TP/UV-D inks are available in 1 liter containers.

SHELF LIFE

For information regarding shelf life please see tin label.

Classification

Read material safety data sheet prior to processing.

The material safety data sheet according to Regulation (EC) No. 1907/2006 (REACH) contains classification according to Regulation (EC) No. 1272/2008 (CLP/GHS) as well as instructions for precautions when processing, handling and storing as well as first aid.

STANDARD SHADES			
Black	TP/UV-D-65-NT		
White	TP/UV-D-60-NT		
Bordeaux red	TP/UV-D-23-NT		
C-MIX 2000 BASE COLOURS			
primrose	TP/UV-D-Y30	violet	TP/UV-D-V50
golden yellow	TP/UV-D-Y50	blue	TP/UV-D-B50
orange	TP/UV-D-O50	green	TP/UV-D-G50
scarlet	TP/UV-D-R20	black	TP/UV-D-N50
red	TP/UV-D-R50	white	TP/UV-D-W50
magenta	TP/UV-D-M50	varnish	TP/UV-D-E50
PROCESS COLOURS ACCORDING TO EUROPE SCALE			
yellow	TP/UV-D-180		
magenta	TP/UV-D-181		
cyan	TP/UV-D-182		

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. MAY 2015 – VERSION NO. 5

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