



For adjustment of pad inks TPI, the following products are available:

<b>Thinner:</b>	<input type="radio"/> Additive C	Extremely quick thinner, good solving power
	<input type="radio"/> VD 40	Quick, very strong solving power
	<input type="radio"/> Additive B	Quick thinner, good solving power
	<input checked="" type="radio"/> <b>Additive A</b>	<b>Standard thinner</b>
	<input type="radio"/> Additive U	Standard thinner, free of cyclohexanone
	<input type="radio"/> VD 60	Slow thinner
<b>Retarder:</b>	<input type="radio"/> TPD	Very slow retarder
	■= Preferred    ○= If required	
<b>Note:</b>	<b>For printing with thick and thin steel clichés sensitive to corrosion</b>	
	<input type="radio"/> Additive A/00	Standard thinner with anti-corrosion additive
	<input type="radio"/> Additive B/00	Quick thinner with anti-corrosion additive

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.

#### ADDITIONAL AUXILIARY AGENTS

Application	Product	Addition in % by weight	Additional Information
Antistatic paste	LAB-N 111420	Max. 10%	Possibly slightly reduced gloss
Retarder paste	LAB-N 111420/VP	Max. 10%	Possibly slightly reduced gloss
Viscosity increase	Thickening powder	Max. 3%	Stir with mixer
Flow agent	VM 2	0.3 - 5%	Do not overdose!

#### OVERPRINTING

Generally, it is not necessary to overprint TPI inks with varnish. Basically overprinting to achieve an enhanced protection of ink layers is possible with TPI/E50.

#### BRONZE COLOURS, MIXING OF BRONZE INKS

Bronze colours may be available upon request.

Printers can mix bronzes themselves using bronze pastes B 75 to B 79. For examples of colour shades please refer to our Bronze Colour Card.

These "B" bronze pastes are mixed with varnish TPI/E50 prior to processing.

Mixing ratios in parts by weight:

Gold bronze paste    to    TPI/E50            = 1 : 3 - 4

Silver bronze paste    to    TPI/E50            = 1 : 4 - 6

Bronzes B 75 to B 79 tend to oxidation. Therefore they should be overprinted, e.g. with TPI/E50. B bronzes are not recommended for long-term outdoor applications.

Note: When overprinting bronze colours with varnish or other colour shades it is essential to carry out pre-tests to check intermediate adhesion of the ink layers (fingernail test, tape test). Possibly mixing ratio needs to be changed to a higher varnish ratio (between 10 – 30%).

#### DRYING

TPI pad printing inks dry physically, i.e. by evaporation of solvents.

Drying times below are only approximate as drying properties depend on various factors:

- Type and amount of thinners/retarders used.
- Thickness of printed ink layer (single print, multiple prints)
- Drying temperature.

Drying time is approx. 2 minutes at room temperature (20 – 25°C). Drying time with heat application (e.g. hot air fan) and air circulation is about 20 - 40 seconds.

Complete drying may take up to 15 minutes, also depending on the substrate.

**Resistance Tests**

Resistances should not be checked before the prints are completely dry.

**CLICHÉ**

All commercial types of clichés (polymer, thin and thick steel, ceramic) are suitable for processing TPI inks.

Note: Standard shades 17, 50, 51 and 65-HD cannot be used for closed ink systems with a magnet holder as they contain pigments with iron oxide content.

**CLEANING**

Clichés, ink pots and tools can be cleaned with our universal cleaning agents URS, URS 3 or thinner VD 40.

**PACK SIZE**

Pad printing inks TPI are delivered in 1 litre containers. Other pack sizes are available upon request.

**SHELF LIFE**

In closed original containers, TPI inks generally have a shelf life of 5 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 Pad Printing HM

Brochures: Pad Printing Inks

Internet: Various technical articles are available for download on [www.coates.de](http://www.coates.de), section "SN-Online"

**FOR COLOUR RANGES, PLEASE REFER TO NEXT PAGE.**

