

# Product Data Sheet

## Pad Printing Ink

**SunChemical**<sup>®</sup>  
Coates Screen Inks

# TP 212/60-31-NT;

# TP 212/60-46-NT;

# TP 212/65-20-NT

Solvent Based Pad Printing Colours of TP 212 range, Oven Curing, 1-Component

### APPLICATION

Oven curing pad printing colour shades of the TP 212 range for printing of duroplastics, coated surfaces, metals, polyester and glass.

### PROPERTIES

- Ink range TP 212 is a solvent based 1-component pad printing ink series.
- In order to achieve mechanical and chemical resistances TP 212 has to be oven-cured.
- TP 212 inks result in a glossy finish.
- TP 212 prints show good mechanical abrasion resistance as well as a high chemical resistance.
- TP 212 ink range is suitable for outdoor applications.

### CHOICE OF PIGMENTS AND LIGHT FASTNESS

Colour shades of TP 212 ink range contain pigments with a high light fastness. Light fastness and weather resistance will reduce if thinner layers are applied.

Applied on suitable substrates pad printing inks TP 212 are suitable for outdoor applications.

### ADJUSTMENT FOR PAD PRINTING

- Pad printing inks TP 212 are not supplied in a ready-to-print adjustment.
- The ink is adjusted for printing by addition of 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

Depending on local conditions, the ink is adjusted for printing by addition of 15 to 30 % by weight thinner or retarder.

**Generally, the thinner suitable for TP 212 is Additive A!**

The additional products listed below should only be used if the required printing quality/ink transfer cannot be achieved using Additive A (e.g. drying too slow or too fast).

For adjustment of pad inks TP 212, the following products are available:

<b>Thinner:</b>	<input type="radio"/> Additive C	Extremely quick thinner, good solving power
	<input checked="" type="radio"/> <b>Additive A</b>	<b>Standard thinner</b>
	<input type="radio"/> VD 60	Slow thinner
<b>Retarder:</b>	<input type="radio"/> TPD	Very slow retarder

■= Preferred    ○= If required

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
Viscosity increase	Thickening powder	Max. 3%	Stir with mixer
Matting	Matting powder	Max. 5%	Stir with mixer
	Matt paste TP 212/MP	Max. 10%	Stir with mixer
Flow agent	VM 1	1 - 5%	Do not overdose!

**DRYING / OVEN CURING**

Initially TP 212 pad printing inks dry physically, i.e. by evaporation of solvents, however, there will be no adhesion to the substrate and no scratch resistance.

Therefore, depending on production conditions, oven curing either directly after printing or within 12 hours should be carried out. Temperatures and curing times are as follows:

**120°C / 30 – 40 min.      140°C / 20 – 30 min.      160°C / 15 - 20 min.      180°C / 10 – 15 min.**

**Resistance Tests**

Resistances should not be checked before completion of oven curing. Allow a cooling time to room temperature (RT) of at least 1 hour prior to checking resistances

**CLICHÉ**

All commercial types of clichés (polymer, thin and thick steel, ceramic) are suitable for processing TP 212 inks.

**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 TP 212 are delivered in 1 litre containers. Other pack sizes are available upon request.

**SHELF LIFE**

In closed original containers, TP 212 colour shades TP 212/60-31-NT, TP 212/60-46-NT, TP 212/65-20-NT inks generally have a shelf life of 12 months from date of shipment.

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.**

**COLOUR SHADES**

<b>SPECIAL PRODUCTS</b> Information about availability upon request			
white	TP 212/60-31-NT	black	TP 212/65-20-NT
white	TP 212/60-46-NT		

*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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