



# TECHNICAL DATA SHEET

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Range name :

## TEMPO VBC

Description :

The Siegwerk mixing system **Tempo VBC** was developed to allow printers to produce themselves specific colours by blending.

The **Tempo VBC** system is a vegetable based mono-pigmented system.

Thanks to high fastnesses, resistances and colour strengths, the **Tempo VBC** range allows the production of shades which are normally not reachable with the usual PANTONE® PMS system.

Except the pigments, **TEMPO VBC** inks are composed of vegetable based components. This concerns the resin and the vegetable oils.

On the other hand, as recommended by the European Printing Ink Association EuPIA these inks do not contain petroleum distillates such as mineral oils no any other hydrocarbon solvents. Potential traces which may be present as impurities from the raw materials, are never exceeding 1%.

Application Fields / Market :

All types of packaging jobs needing particular shades.  
Can be used for commercial printing and also for stationary applications.

Product safety:

Food packaging, pharma, or hygiene: **NO \***

\* If the printing processing conditions rule out the possibility of set-off in the reel or stack and the design of the final printed article ensures reliable functional barrier properties to migration then this range can be used for the above applications.

For further information, please refer to **Siegwerk's Customer Guidance: Printing Inks for Food Packaging ("Know How")** on <https://www.siegwerk.com/en/our-responsibility/product-responsibility/customer-communications/food-packaging-safety.html>

Substrates:

All kinds of coated and uncoated paper and board.  
Preliminary adhesion and drying tests on non-absorbent materials are recommended.

Features - Performances:

- ⇨ **ON THE PRESS SIDE**
  - Application area: sheetfed but could also be used for web printing (continuous form)
  - Easy to use: very good stability of the water / ink balance
  - Suitable for all dampening systems with or without alcohol
  - Excellent runnability even at high speed
  - Good stability on the ink duct
  
- ⇨ **ON THE PRINTING SIDE**
  - Very high colour intensity, allowing ink consumption reduction
  - Fast setting speed and final oxidative drying
  - Over printability and lamination (see fastness on the next pages)
  - Very good rub resistance
  - Excellent level of chemical and physical resistance



**Warning :**

- In order to increase the shelf life and avoid skin formation during storage even if tins are opened, **these inks do not contain any dryers. Thus dryers must be added before printing.**

The type and the quantity of dryer must be adjusted depending on the final application (see below the recommended additive list)

- The use of an IR drier or warm air will improve the setting and the gloss but it is recommended to respect 30°C maximum in the stack.
- The addition of anti-friction paste is not recommended in case of laser post-printing.
- The series is not suitable for blister applications.
- For toy applications, please contact our technical department.

- These inks have a shelf life of 2 years from the date of production. This has to be interpreted as a warranty of "the best use" concerning the printing properties of the inks, providing the cans are not opened and stored at room temperature. After this date the inks are still usable on the press but their printing properties could eventually be altered in terms of transfer, trapping, optical density and to a certain extend in term of shade by consequence of the transfer.

**Auxiliary printing additives :**

When certain substrates or machine conditions imply adjustments of the ink properties, the additives should be chosen in function of this substrate and of the further processing of the printed matter.

Role	Designation	Reference numbers	Proportions
Diluent	Vegetable Diluent	65-003818-5	1 to 3%
Tack reducer	Stargel Nutripack	61-470080-5	1 to 3%
Dryer for paper/board	Dryer compound	65-470088-9	1 to 2%
Dryer for non-absorbent substrates	Plastoffset dryer	65-471228-0	3 to 5%
Anti-friction paste	Hardener	61-470296-7	2 to 5%

For Fountain additives and Cleaning products please contact our technical department.

**Packing size:**

- ✓ Vacuum Metallic Tins                      2.5 kg                      Packaging code                      1200
- ✓ Bigger packing on demand                      (25 kg – 200 kg)



**The range :**

• **PROCESS INKS**

The range is composed of two ink categories:

- with pigments able to be over-varnished with WB, or UV varnish or to be laminated
- with fanal pigment types not recommended to be over-varnished nor laminated

**FAST INKS INTENDED TO BE OVER-VARNISHED OR LAMINATED**

Colours	Reference numbers	Finishing	IWS (1)			Alcohol	Solvent	Alkali	Lactic acid	Butter	Paraffin	Soap
		UV or Water Based or Lamination	100% conce ntrat°	50% conce ntrat°	10% conce ntrat°							
LEMON YELLOW	61-300439-9	Yes	6	6	4	5	4	5	5	3	4	5
YELLOW *	61-302656-6	Yes	5	4	2	5	5	5	5	5	5	5
YELLOW IWS 6	61-302639-2	Yes	6	6	4	5	3	5	5	4	4	5
FAST YELLOW	61-302637-6	Yes	7	6	5	5	5	5	5	5	5	5
ORANGE 021 *	61-701093-9	Yes	5	4	2	5	5	5	5	5	5	5
FAST ORANGE	61-700163-1	Yes	6	5	4	5	2	5	5	4	4	4
THERMOFAST ORANGE	61-701094-7	Yes	7	6	5	5	5	5	5	5	5	5
WARM RED *	61-804858-1	Yes	5	4	3	5	3	5	5	5	3	5
FAST WARM RED	61-804862-3	Yes	7	6	4	5	5	5	5	5	5	5
WARM RED 032	61-804863-1	Yes	7	6	4	5	5	5	5	4	5	5
RUBINE RED *	61-804861-5	Yes	5	4	3	5	5	3	4	5	5	2
FAST RUBINE	61-804865-6	Yes	6	5	4	5	5	5	5	5	5	1
CARMINE RED	61-804857-3	Yes	7	6	5	5	5	5	5	5	5	5
FAST RHODAMINE	61-804860-7	Yes	7	7	6	5	5	5	5	5	5	5
FAST VIOLET	61-101067-9	Yes	7	6	6	5	5	5	5	5	5	5
FAST REFLEX BLUE	61-110739-2	Yes	7	7	7	5	5	5	5	5	5	5
PROCESS BLUE *	61-113907-2	Yes	8	7	7	5	5	5	5	5	5	5
GREEN *	61-501950-2	Yes	8	7	7	5	5	5	5	5	5	5
NEUTRAL BLACK *	61-902027-4	Yes	7	7	7	5	5	5	5	5	5	5
TRANSPARENT WHITE *	61-003802-8	Yes	/	/	/	5	5	5	5	5	5	5
OPAQUE WHITE	61-010410-1	Yes	7	7	6	5	5	5	5	5	5	5



**NON FAST INKS SUITABLE NEITHER FOR VARNISHING OR FOR LAMINATION**

Most of the below inks together with some inks from the first table, marked with a \*, allow the reproduction of PMS ® shades.

Colours	Reference numbers	Finishing	IWS (1)			Alcohol	Solvent	Alkali	Lactic acid	Butter	Paraffin	Soap
		UV or Water based or lamination	100% conce ntrat°	50% conce ntrat°	10% conce ntrat°							
WARM RED IWS3 *	61-804856-5	NO	3	2	1	5	5	2	4	5	5	3
RHODAMINE *	61-804859-9	NO	4	3	2	1	1	2	4	5	3	4
PURPLE *	61-101071-1	NO	4	3	2	1	1	2	4	1	3	2
VIOLET *	61-101078-6	NO	4	3	2	3	3	3	4	1	3	2
REDDISH BLUE (072 type)*	61-113902-3	NO	3	2	1	2	3	4	4	1	3	3
REFLEX BLUE *	61-113914-8	NO	4	3	2	2	3	5	5	3	5	5
STRONG DARK BLUE	61-113896-7	NO	4	3	2	2	3	5	5	3	5	5

(1) These light fastness values refer to a solid printing. Light fastness decreases when colour strength is reduced or if colours are intermixed.

Colour assortments of both ranges are available; please contact us for implementation and recommendation.

This information is based on our experience and on results obtained in the laboratory, using specific processes and types of application. In view of the diversity of substrates and printing conditions, this data is communicated for information purposes only and is provided without any warranty on our part and must be authenticated by industrial tests before the products are used. Improvements are being made to our products on an ongoing basis and we therefore reserve the right to modify their composition as well as the contents of our technical data sheets. We disclaim any liability for applications for which this ink series is not foreseen.