

TIGPFY3031

TWO-PART WATER-BASED PLASMA (GAS) STERILIZATION INDICATING INK

INITIAL COLOR = **RED** 

SIGNALLED COLOR = **YELLOW/ORANGE** 

This easy to apply, easy to clean up ink is designed to produce a flexographic print capable of functioning as a **Type 1 Chemical Indicator** for PLASMA (GAS) sterilization applications.

Note: The signal color may vary in different sterilizer models and can vary from yellow to orange depending on plasma/gas concentration and/or distribution, and sterilizer load. Evaluation of printed indicators by users to validate signal color is encouraged.

Technical Data Sheet: TIGPFY3031 2-part Plasma	
Product Properties - ACTIVATOR (TIGPFY3031 Part A)	
Specific Gravity	1.07
Typical Viscosity (Brookfield -RVT, #3 spindle @20RPM)	1100 cps
VOCs	0.53 lbs/gal (63.3 gr/ltr)
Wt. % Solids	36
Product Properties - DYE (TIGPFY3031 Part B)	
Specific Gravity	0.867
Typical Viscosity (#2 Zahn cup)	22 seconds
VOCs	0.05 lbs/gal (5.44 gr/ltr)
Wt. % Solids	21.8
Product Properties - BLENDED (DYE & ACTIVATOR)	
Specific Gravity	0.892
Typical Viscosity (Brookfield -RVT, #3 spindle @20RPM)	350 cps
VOCs	0.52 lbs/gal (61.74 gr/ltr)
Wt. % Solids	34.5
APPLICATION GUIDELINES	
Application Method	Flexographic
Recommended Anilox	200-300 lines/inch (80-120 lines/cm)
Drying Temperature	110°F/43°C - 125°F/52°C
Press Speed	200-400 ft/min (60-120 m/min)
Substrate	Tyvek®
Thinner	Distilled Water
Warranty Period	6 months from date of shipment
Package quantities available	Kit – 7 lb (3.2 kgs) Part A: 5.6 lb (2.54kg) Part B: 1.4 lb (0.64 kg)

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Directions for Use

There are similarities between sterilization inks and other graphic printing inks. However, there are differences that impact the ink's performance. For example; to achieve the signal change of the Chemical Indicator, the amount of ink typically required is greater than the ink printed for the same size graphic image. Please follow provided guidelines and contact our technical support for additional assistance.

1. This ink is supplied as a two-part kit (ACTIVATOR and DYE).
2. Bring ink to room temperature before printing.
3. Thoroughly mix each part separately, using a mechanical method such as a drill with a dispersion blade; each for at least 30 minutes. This helps ensure the ink is fully homogeneous and that all solids are incorporated in the solution. To check that the ink is completely homogenous use a wooden stick to probe for any ink solids that may remain on the bottom of the container. Failure to properly mix the ink may result in poor or inconsistent signaling.
4. **Mix 4 parts TIGPFY3031 Part A (activator) with 1 part TIGPFY3031 Part B (dye) by weight thoroughly.** A recommended thinner may be added for adjusting viscosity up to 5% at a time.
Note: Thinning the ink may impact functionality. Confirm initial and signal colors with each thinner addition.
Thinner: Distilled Water
5. Do not mix in any additives as they may interfere with the chemical reaction that causes the color change; contaminants risk changing the ink chemistry.
6. Be sure to wash all cleaning fluid off any area of print press that will contact ink; cleaning fluids can cause ink chemistry change.
7. Ensure that during the printing process, ink in the fountain is stirred continuously to avoid solids depositing on the bottom of the tray.
8. Viscosity should be monitored on a regular basis, typically 30 to 60-minute intervals.
9. Use best quality substrates.
10. Always run a sterilization test prior to a full run.
11. It is critical to ensure sufficient ink lay down in order for the converted chemical indicator to perform as intended.

Performance Conditions

Six (6) MIN +/- 1 s, 50°C/122°F +/-0.5°C, GAS CONCENTRATION 2.3 MG/L +/-0.4 MG/L

Recommended Usage Period

- Unblended: Six (6) months from date of shipment when stored as recommended in the original container.
- **Blended: 2 days after blending.**

Storage & Handling

- Store ink in the original closed container in a cool and dry place between 40°F/4°C and 80°F/27°C; do not freeze.
- Refer to Safety Data Sheet for information on handling and safety instructions.
- The printed ink may be affected by a basic pH condition. Care should be taken to store printed product in bags with a neutral pH.

Warranty

LA-CO Industries (LA-CO) agrees to exchange or refund the price of Tempil inks which, at LA-CO's discretion, contain material and/or manufacture defects, when stored in the original container in the recommended storage conditions. There is no guarantee or warranty as to anything made or sold by LA-CO, or of any services performed except as to title and freedom from encumbrances and except as herein expressly stated and particularly, and without limit the foregoing, there is no guarantee or warranty, express or implied, or merchantability or of fitness for any particular purpose or against claim of infringement or the like. LA-CO makes no warranty (and assumes no liability) as to function of product or systems built to Buyer's design or of the ability of any goods to interface, operate or function with any portions of Buyer's system not provided by LA-CO.

Disclaimer

This document is a guideline. The selection and testing of the ink for specific applications is exclusively the user's responsibility. Each press and process must be individually assessed by the user. The colors indicated in this document should be used as a guideline and are not intended to represent an exact color depiction of your converted chemical indicators as Tempilinks cannot be matched to commercial ink color matching systems.

**FOR ADDITIONAL INFORMATION PLEASE SEE TEMPILINK WHITEPAPER/SUPPORT DOCUMENT:
"HYDROGEN PEROXIDE STERILIZATION AND CHEMICAL INDICATORS"**