

# Ethylene Oxide (EO) or Vaporized Hydrogen Peroxide/Plasma (VH<sub>2</sub>O<sub>2</sub>) Indicator Ink for Flexography Printing Processes



### IPVP-01

True Indicating's EO or  $VH_2O_2$  Ink, Product Code IPVP-01, is a flexographic ink formulation used to monitor exposure either to EO or  $VH_2O_2$  conditions. The ink is a water based formula which contains no heavy metals or other harmful materials and has low VOC's.

Physical Properties	
Process	Ethylene Oxide (EO) and/or Vaporized Hydrogen Peroxide VH <sub>2</sub> O <sub>2</sub>
Ink Carrier	Water
Packaging	HDPE or equivalent containers
рН	9.0 – 10.5
Viscosity Zahn Cup # 2	15 - 30 seconds
Ink Appearance	Thick pink liquid
Printed Indicator Color	Initial Color: Purple Signal Color: Pink
Anilox Roller	200 – 100 lpi
Flexographic Line Speed	≥150 ft./min.

## Intended Use

Indicator Ink is intended for manufacture of EO and/or  $VH_2O_2$  Process and Multi-Critical Variable Indicators. The Indicators are intended for use in distinguishing processed from unprocessed goods or to indicate exposure to a sterilization process at a stated value (SV). Validation of Indicators and their performance is at the discretion of the manufacturer. The Indicator Ink has been confirmed to be ISO 11140-1:2014 Type 1 compliant on paper (EO only), Tyvek® or Film when exposed per the conditions outlined below.

Type 1 Process Indicator	2.3 mg/L VH <sub>2</sub> O <sub>2</sub> at 50°C for 6 minutes
	or
	600±30 mg/L EO at 54°C and 60±10% Relative Humidity (RH)



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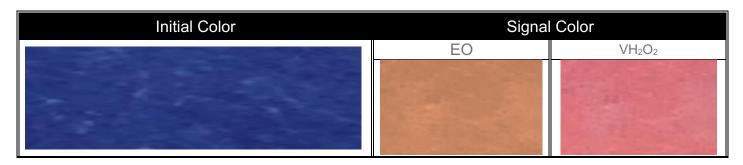


Printed Indicators manufactured with ink IPVP-01 can be used at temperatures between 30° and 80°C.

#### Instructions for Use

IPVP-01 is intended for flexographic printing onto paper (EO only), Tyvek® or film based substrates. EO or VH<sub>2</sub>O<sub>2</sub> exposure of printed ink will transition from purple to brown/pink. The shade of initial and signal color will depend on the thickness of ink printed, the substrate onto which it is printed, and the exposure conditions.

Colors shown are examples of actual printed ink using a 165 lpi Anilox roller and Tyvek<sup>®</sup>. Signal or end point color will vary due to printing conditions and exposure variables.



Storage and Shelf Life	
Shelf Life	4 months from date of manufacture
+15°C	15°C to 30°C (Protect from heat sources)
	Keep away from sterilant and other chemical agents. <b>Do not reuse ink!</b> Discard all remaining ink.  Up to 5% by weight of water or ether can be added to the ink to decrease dry time.
20%	20% to 80% Relative Humidity

## **Disposal**

Dispose in accordance with all federal, state, provincial, and local regulations. This material does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CRF 261.



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