## Kao Collins Inc.

# TWW1929

Kao Collins Inks for HP 45A Technology

### Invisible Fluorescent Red Activated with Long Wave UV illumination (UVA)

TWW1929 is a water-based invisible security ink that is activated under black-light illumination to give a red emission color.

#### Ink Features

Fluid based: Aqueous

• Colorant: Proprietary • Flash Point:  $> 100^{o}C$ 

• Shipping info: Non-hazardous

#### Recommended Printer Settings

Pen driver voltage: 10.2 VFire pulse length:  $2.2 \mu \text{s}$ Pulse warming:  $40^{o}C$ 

#### Printhead Performance

Decap time: < 4 hr Shelf life (single) 6 months

#### Cartridge Maintenance & Handling

- Use a water dampened lint-free cloth to clean the print head
- Wipe slowly and lightly across tip of the long edge with the print head facing down
- Forcing the wipe (too much pressure) may scratch the print head
- Use of a cloth with lint may clog the nozzles

#### Cartridge Storage

• Operating conditions:  $10 - 40^{\circ}C$ 

• Storage conditions:  $10 - 30^{\circ}C$ 

- Less than 1 day down: leave cartridges in the machine and wipe/purge before next use
- More than 1 day down: remove cartridges from machine and place cartridge clip (available from Kao Collins) over the head, wipe and purge before use

#### Substrate Performance

600x300 DPI

Dryer: OFF

Rating: 1–5 (5=Best)

**Disclaimer**: The information presented in this data sheet is intended only as a guide and does not infer a warranty of performance. Results may vary depending upon many variables including the specific grade of substrate, environmental conditions, print speed, etc.

Sample Substrate	28 lb Writing (no OBA) <sup>1</sup>	Chipboard	Clay Coat Box
L [CIE] $ exttt{@}$ 365 nm $^2$	24.4	11.1	51.0
Unassisted Dry Time	0.5 sec	0.5 sec	1 sec
Dry Rub Resistance	5	5	5
Wet Rub Resistance	2	5	5

#### Note:

<sup>&</sup>lt;sup>1</sup>Substrate contains no Optical Brightening Agent

<sup>&</sup>lt;sup>2</sup>Relative emission intensity with UV illumination