



Endurance

 $\textbf{TWK2010H} \quad \text{Collins Brand Inks for HP 45A Technology}$

Dark Image on Various Substrates High Yield in Bulk

Endurance Black is a dye-based ink that was designed for bulk applications. It provides a dark image and high contrast throughout which can result in lower impression costs.

Ink Features

• Fluid base: Aqueous

• Colorant: Dye

• Flash Point $> 70^{o}C$

Shipping info: Non-Hazardous

Recommended Printer Settings

Pen driver voltage: 10.2 V Fire pulse length: $2.2~\mu s$ Pulse warming: $40^{\circ}C$

Printhead Performance

Decap time: > 1 hrShelf life (single/bulk) 1 yr/6 moBulk Cartridge Throughput¹ >600 mL

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 Collins Ink) 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	Copy Paper	70# Gloss	Matte	Chipboard	Clay Coat Box
Optical Density	1.04	1.13	1.05	.93	.92
Unassisted Dry Time	1 sec	2 sec	1 sec	1 sec	1 sec
Wet Rub Resistance	5	4	5	5	5

Note:

¹Throughput before nozzle failure will vary based on application parameters; e.g., DPI, Nozzles Used, Duty Cycle, & Print Speed