



JETRION™ 3824 FAST CURE UV BLACK INK

Brief Description: Jetrion 3824 Fast Cure UV Black Ink is a **pigmented, 100% solids, acrylic UV-based** formulation, designed for use on a wide range of coated and uncoated, non-porous substrates such as vinyls, polyolefins, polyesters, and papers.

Process: DOD - UV

Application: Narrow Web Labels; Direct Mail/Addressing; Commercial Printing; Labels

Substrate: Film/Foil
Coated; Uncoated
Non-Porous

Reducers:

| | | |
|----------|------|------|
| Standard | Slow | Fast |
| N/A | N/A | N/A |

Full Description: Jetrion WFK3824 ink is designed for use in industrial piezo DOD printheads at a temperature of 50° C. The inks are suitable for tickets, tags, labels, plastic cards, forms, direct mail/addressing substrates and emerging application areas such as select packaging applications where Food Law Compliance is not a requirement. Formulated to cure very quickly with minimal UV energy, WFK3824 is ideally suited for high-speed, variable printing, inline applications on web presses and mailtables.

The inks are extremely durable and offer excellent waterfastness, wet rub resistance and chemical resistance. The pigments exhibit excellent lightfastness, which makes the inks suitable for outdoor exposure of 1 to 2 years or even longer, depending on the substrate used.

Products (Order Code): WFK3824

Typical Physical Properties:

| Property | Range |
|---|-------|
| Viscosity cps @50° C | 10-12 |
| Surface Tension - dynes | 21-23 |
| Cure Dose mJ/cm ² (see below) (Metal Halide Lamp - 450 Watts/inch) | 200 |

Curing Information:

The energy required to cure an ink film of 12.5 ±1 microns thick film (corresponding to printing a solid 316x316 dpi block with 80 picoliter drops) using a Lighthammer 6 with a power of approximately 450 Watts per inch is 200 mJ/cm². The ink cures best

with an iron doped mercury lamp. The energy value quoted here is the sum of UVA and UVB measured using an EIT power puck. Intensity was 5.0 W/cm² UVA, 1.7 W/cm² UVB.

Peak irradiance (maximum intensity) is also a factor in curing. At constant energy, cure is faster with higher peak irradiance. Reducing film thickness will greatly enhance cure speed. When all other factors are constant, there is an inverse relationship between line speed and energy exposure. The number of the lamps can be increased, thus increasing the total energy output, and enabling the line speed to be increased. However, cumulative low energy exposures will not necessarily give the same degree of cure as one pass at higher energy outputs. Ideal curing conditions can easily be determined when all aspects of the printing process and the desired curing method are known.

Compatibility:

- Compatible materials, which can be kept in long term contact with the inks, include: stainless steel, PTFE, EPDM, PP, PE (LD&HD).
- Incompatible materials include: butyl rubber, Viton, nitrile, PU rubbers, Neoprene, PVC.

Storage Conditions:

Store ink at 59°F to 86°F (15°C to 30°C).

Shipping Conditions:

While the ink is stable at low temperatures, it is best to prevent freezing or exposure to temperatures above 95°F.

Shelf Life:

6 months

Packaging Configuration:

Standard packaging size:

| Packaging Size | Description |
|----------------|--------------|
| 4 x 1 liter | HDPE bottles |

About Jetrion

A wholly-owned subsidiary of Flint Group, Jetrion LLC provides a complete spectrum of industrial inkjet products, services and custom high-performance integration solutions to the printing, converting, packaging, wide-format and direct mail industries.

Other Information:

Address:

Jetrion
1260 James L. Hart Parkway Ypsilanti, MI 48197
+1 734 641 3062 Fax +1 734 641 3065 www.jetrion.com info@jetrion.com

All information is based on results from experience and tests and is believed to be accurate, but given without acceptance of liability for loss or damage, attributable to reliance thereon as conditions of use lie outside our control.