

# Technical Data Sheet

## StarFire® II Litho Inks (SFI)

### General description

StarFire II Inks are a unique combination of ultra-fine, high strength fluorescent pigment dispersed in a rheological controlled vehicle system. This yields maximum color density and excellent printability. They are available in standard fluorescent colors, Pantone® 800-series\*\* colors and five Fresh Colors™ (double bump strength in a single bump).

### Applications

- Conventional and heat set offset litho inks.

### Product features

- Stronger, brighter colors
- Excellent tack stability.
- Advanced rheology for better press performance.
- Faster setting & drying.
- Non-chalking.
- Ultra-low emulsification properties.
- Improved ink transfer characteristics.

### Available Colors

Product Code	Color
SFI-2801	Aurora Pink (Blue Shade)
SFI-2802	Saturn Yellow
SFI-2803	Fresh Color Yellow*
SFI-2804	Fresh Color Orange*
SFI-2805	Fresh Color Red*
SFI-2806	Fresh Color Pink*
SFI-2807	Fresh Color Magenta*

### Packaging:

0.5 Gallon Can = 5lb

### Storage & shelf life:

24 months when kept in closed original packaging in a dry place at ambient temperature.

### Safety & regulatory:

Safety Data Sheet available on request.

### Physical properties

Delivery form	Aqueous Dispersion
Starfire Base concentration	78-82%
Wax	PTFE
Specific gravity	1.06 – 1.08 lb/gal (0.127 – 0.129 g/ml)
Volatile organic compounds	1.0 – 1.2 lb/gal (130 – 140 g/l)

**Disclaimer:** Our technical advice, information, statements, whether given verbally, in writing, or in the form of test results, is offered for your guidance without warranty. No warranty for fitness for a particular purpose is made. This also applies where protective rights of third parties are involved. It does not release the user from obligation to test the suitability of the products and formulas for the intended process and applications. Our guarantee is limited to the consistent quality of our product.

Processing	
Tack	13-15 @ 1200 RPM, 90°F
Ten minute tack rise	3.0 @ 1200 RPM, 90°F

Usage	
Anti-Emulsification	StarFire II Inks have excellent anti-emulsification properties that allow heavier ink film thickness to be carried on the press. Printers are encouraged to run StarFire II Inks to their limit. SFI Inks will perform well with solids as well as half tones.
Setting & Drying	Starfire II Inks set and dry very fast. This reduces “work and turn” time and improves handling time for fluorescent print jobs. However, they do require 24 hours for full oxidation. Infrared lamps will accelerate setting and drying if desired. Moderate use of non-offset spray powder is recommended for heavy ink deposits. Non-offset spray may be reduced or eliminated on normal ink deposits. The StarFire II Inks are also completely compatible with aqueous coatings. The addition of more driers to the ink may accelerate dry time, but may also affect the final color and brightness. Additional driers are not recommended unless unusual conditions exist. The addition of Cobalt drier will accelerate drying, but will also darken the color and cause color instability.
Stock	DayGlo StarFire II Inks are semi-transparent. It is important to print on stocks having good whiteness and opacity. Printing on dark stock or over dark ink will result in a noticeable loss of fluorescent color. However, attractive color effects may be obtained by printing over light, clean, non-fluorescent stock or ink. StarFire II Inks are transparent enough to be trapped over black ink without a noticeable loss of black color and density.
Condition of the Press	Cleanliness of the press and especially of the rollers is essential for good fluorescent color brightness. If initial results are not as clean or bright as desired, the ink should be checked for possible contamination. If contamination is suspected, a small sample of the ink from the form rollers scraped down side-by-side on uncoated stock against ink from the can will usually confirm the fact. Rollers should not be pitted or cracked, as this is also a source of contamination.
Mileage	For ink estimating, the Starfire Inks yield approximately 300,000 to 350,000 square inches per pound on coated stock and 100,000 to 200,000 square inches per pound on uncoated stock. Ink mileage can vary greatly with applied film thickness.
Fountain Solutions	The StarFire II Inks work best with a fountain solution pH of 4.0 to 5.5. The addition of up to 25% isopropanol alcohol to the fountain solution will aid in anti-emulsification properties of the ink. Fountain solutions containing alcohol substitutes will work well, but ink film thicknesses may have to be reduced for optimum results.
Rub Resistance	The satin ink film of the Starfire II Inks can burnish with rubbing but will adhere well to the stock when dry. If additional rub protection or product resistance is desired, an overprint varnish may be applied.
Halftones	Where halftones are to be printed, color strength of solid copy will be governed by the density of the halftones in the copy. Starfire II Inks will print sharp halftones at normal ink film thicknesses. To achieve maximum color effects with solid color artwork, the halftones should be minimized or eliminated.