

Technical Data Sheet

StarFire® II Litho Bases (SFB)

General description

DayGlo® StarFire II Bases 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 from DayGlo Color Corp. in standard fluorescent colors, Pantone® 800-series** colors and five Fresh Colors™ (double bump strength in a single bump).

Applications

- Conventional offset litho inks
- 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
SFB-211B	Aurora Pink (Blue Shade)
SFB-217	Saturn Yellow
SFB-253	Fresh Color Yellow*
SFB-254	Fresh Color Orange*
SFB-255	Fresh Color Red*
SFB-256	Fresh Color Pink*
SFB-257	Fresh Color Magenta*
SFB-2801	PANTONE 801 Blue**
SFB-2802	PANTONE 802 Green**

Packaging:

3 Gallon Pail = 30lb (2x10kg)

Storage & shelf life:

120 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	High viscosity paste
Average viscosity	9000 poise
Pigment concentration	>50%
Specific gravity	1.10 – 1.13 lb/gal (0.13 – 0.36 g/ml)
Volatile organic compounds	0.4 – 0.5 lb/gal (45 – 55 g/ml)

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	
Typical Extender Varnishes	For optimum results, a gloss quickset vehicle is recommended. Optimum setting characteristics are developed with this varnish as well as optimum color brightness and a satin or semi-gloss finish. Always pretest the ink formulation for drying and adhesion on the stock to be printed
Rub & Slip Additives	Where maximum setting speed and good rub resistance is required, the use of a high quality dry wax is recommended. Usually 2-3% dry wax is sufficient. This permits the use of additional vehicles, oils, and other modifiers, which will contribute to faster setting speed, and improved printability and finish. Where maximum rub and slip properties are desired, the addition of 0.5% - 1.0% PTFE powder is recommended.
Driers	A combination drier of 1% of 6% cerium, 1% of 12% manganese, and 1% of 6% manganese drier is recommended for sheetfed offset inks made from StarFire II Bases. The addition of cobalt drier will accelerate the drying, but will also darken the color and cause color instability. This condition is accentuated when heat is involved in the printing process or in ink storage.
Tack Reducing Agents	High boiling aliphatic ink oils such as Magiesol 52 or 60 (or equivalent) are recommended as the primary tack reducers. DayGlo VELEX® TR-052, 100% solids tack reducer, is also highly recommended. In addition to reducing tack effectively, the TR052 will help maintain ink viscosity, improve press stability, add oxidizable solids and enhance blanket release. Drying oils such as tung, oiticica and linseed oil can also be used to reduce tack and add oxidizable solids.
Additives for Water Resistance & Anti-Emulsification Properties	The StarFire II Base colors have been formulated to resist emulsification in most common ink formulations. Additional anti-emulsification additives should not be necessary.
Adding Non-Fluorescent Colors	Small amounts of non-fluorescent color can be used effectively without significantly detracting from color brightness. Increases in color strength will usually compensate for any loss in brilliance. For example, 5% Red Lake C flushed color added to 70-80% SFB-214 in the finished ink will result in a noticeably stronger ink without a significant change in the hue or brightness. Conversely, small amounts of StarFire II Base colors can be added to conventional colors to help "clean up" the color. This has been found to be particularly effective when printing on uncoated paper stocks where the conventional inks lose color brightness when absorbed into the stock. Clean, bright magenta and yellow process colors can also be formulated with various combinations of SFB-222 and SFB-223 in combination with conventional process rhodamine, rubine and diarylide yellow flushed colors.
Hybrid Inks	StarFire II Bases can be used in UV curable hybrid ink systems. Formulations can vary greatly and should be thoroughly tested for compatibility, stability and printability