QCR Solutions Corp
Quality + Consistency + Reliability

Version: 2018.03.PSIP

Technical Data Sheet

PhotoFlare Photochromic Screen Inks (Solvent Based)
Reversible Sunlight (UV) Reactive Inks

PhotoFlare Photochromic Screen Inks reversibly change color upon exposure to ultraviolet light (Sunlight) in the range of 300 to 360 nanometers. The dyes change back to colorless when removed from the UV light source.

Colors

The PhotoFlare Photochromic Screen inks are suited for Printing onto extruded polypropylene and treated polyethylene substrates. The inks are available in 6 different colors including blue, yellow, red, green, purple and orange.

Application

The PhotoFlare Photochromic Screen Inks are suited to manual, semi-automatic and automatic machines for flatbed screen printing processes. As with all color changing inks the printed effect is dependent upon several factors including substrate, temperature and mesh count.

Printing Recommendations

Screens and screen configuration

Fabrics: All types of nylon and polyester fabrics can be used
The optimum screen configuration depends on several factors, the most important of which is the desired colour of the finished product.
Recommended Mesh Size: 90 threads/cm
Min/Max Mesh Size: 120T/77 threads/cm

Squeeges

To obtain a minimum deposit, we recommend hard polyurethane squeegees (shore hardness A-75 to 80), with a minimum slope and an excellent sharpening.

Dilution

The ink is ready to print out of the can. Thinners or other modifiers are not recommended because they are likely to hurt the life of the ink. Do not mix spot colors to form additional colors because the spot color inks do not have compatible stabilization systems and the life of the ink will be impaired.

Curing

By solvent evaporation. Once dry, the ink film does not stick. At ambient temperature: the prints will be touch-dry after about 10 to 15 minutes depending on temperature and hygrometric conditions.
In forced air conditions: prints can be dried in a well ventilated hot air tunnel (60°C) during 10 to 20 seconds. Before stacking, it is important to make sure that the entire printed surface has dried and that the print is cool enough.

Cleaning Recommendations

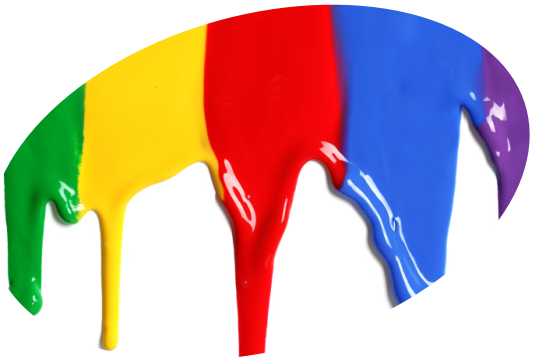
Photochromic solvents based Screen Ink should be cleaned on screen using standard mineral spirit based screen washer or standard screen washers. It is extremely important to have the screens, squeegees and flood bars as clean as possible to prevent contamination of the ink.

Storage and Handling

will remain stable if stored away from sources of UV light and temperatures above 25°C and below 5°C. Do not store in temperatures in excess of 32°C as curing of the ink will start skinning in the container. Keep container tightly closed to avoid cross contamination.

Do not freeze. Do not mix with other ink systems. Mix thoroughly prior use.

Shelf life: 3 months, when stored in the above recommended conditions.



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Sensitivity

Light

Photochromic inks are inherently susceptible to damage by UV light. They will degrade from UV exposure over time. Life expectancies depend on intensity and duration of UV exposures.
UV protective varnish should not be used as this will interfere with the color changing properties of the ink.

Adhesion

Photochromic Solvent based screen substrate is best suited to substrate where surface tension is measured above 42dynes/cm. Due to the wide variety of substrates it is recommended that this ink is evaluated fully prior to any commercial use.

All Applications using any QCR Solutions Corp products should be thoroughly tested prior to approval for production.

Information in this Product Data Sheet is compiled from our general experience and data obtained from various technical publications. While we believe that the information provided herein is accurate at the date hereof, no responsibility for its completeness or accuracy can be assumed. Tests are carried out under controlled laboratory conditions. Information is given in good faith, but without commitment as conditions vary in every case. The information is provided solely for consideration, investigation and verification by the user. We do not except any liability for any loss, damage or injury resulting from its use (except as required by law). Please refer to the Material Safety Data Sheet before using products to ensure safe handling.