

SpectraFlair® 1500 Series Pigment Printing Guidelines



SpectraFlair 1500 Series pigment has been successfully tested in screen, flexography, gravure, and pad printing processes. Its use in lithography is currently under development.

The pigment is suited for solvent-based, water-based, and radiation-curable ink systems. In radiation-curable systems, increasing the photo-initiator level may be required for complete curing. Water-based systems may require passivation to prevent flake degradation and gassing. Please refer to the MSDS regarding the safe handling of the pigment in water-based systems.

Loading

Loading levels depend on several factors including the substrate, applied film thickness, hiding requirements, and other pigments in the paint system. JDSU recommends levels of 5 to 20 percent by weight (based on total solids) of pigment for most formulations. Maximum loading may be increased up to 30 percent for flexographic inks.

Dispersion

The pigment disperses readily in most vehicle systems. JDSU recommends that you incorporate the pigment with a high-speed, low-shear disperser and that you do not process with sand or media mills.

Once dispersed, settling may occur over time and the pigment must be shaken or stirred prior to application. JDSU recommends that you add the pigment just prior to its use on press. For long press runs, additional agitation or stirring may be required to minimize pigment settling.

Screen Printing

Screen selection will vary depending on the desired pigment effect. The recommended starting point is 200 to 325 mesh with 280 mesh as optimal for best ink mileage. It is important to use a 70 – 90 durometer squeegee.

Flexography

The anilox should be from 135 line screen/12 BCM to 220 line screen/8 BCM.

Gravure Printing

The preferred cylinder engraving is from 150 line screen/28 micron depth to 200 line screen/20 micron depth.