
ACTEGA WIT PHARMAFLEX HIGH DEFINITION UV CURABLE FLEXOGRAPHIC INKS

Strong, low viscosity inks formulated to be safe for most beverage, cosmetic, pharmaceutical and other high human contact packaging.

Product Overview

PharmaFlex UV curable flexo printing inks have been developed specifically to address the needs of printers demanding a state-of-the-art ink system for low odor, low taint and extractable sensitive applications.

PharmaFlex UV curable inks are the core of a comprehensive approach to value added production and marketing of packaging materials targeted for consumer products. By eliminating the harmful ink components commonly found in most ink extraction and migration tests *ACTEGA WIT* marries high uptime performance and outstanding value per unit of coverage with new sales opportunities available through the use of this novel product.

PharmaFlex inks consistently exhibit strong color whether printing process dots, fine copy or solids. While many ink lines claim to have low viscosity, *PharmaFlex* inks are truly low viscosity, press friendly and remain stable over the lifetime of the product.

Clean, strong colors allow the printer to marry the anilox roll to the artwork, rather than settling for dirty printing from using coarse anilox rolls. In most cases our customers can print vignettes and full, dense solids using fine line anilox rolls.

In addition safety of our customers is of paramount concern. For this reason *PharmaFlex* UV curable flexo inks do not contain aggressive skin sensitizers, fetotoxic agents, mutagenic compounds, amines, benzophenone, or any materials even suspected to be carcinogenic. Virtually all other UV curable inks and coatings sold today contain some or all of these types of materials.

Print and Press Characteristics

PharmaFlex UV curable flexo inks print with sharp, crisp edges on dots, lines or even heavy reverses. Compared to other UV curable inks, the *PharmaFlex* products consistently exhibit less dot gain and sharper character definition even atop absorbent paper and board stocks.

These inks perform well on most flexo presses. Print performance of three roll, two roll, open pan, and reverse pan/blade designs are optimized with *PharmaFlex* UV flexo inks. As with all UV curable flexo inks the use of ceramic, laser engraved anilox rolls and doctor blades is strongly encouraged.

The *PharmaFlex* inks have solved the problems commonly associated with UV curable flexo inks. *PharmaFlex* inks will not sling, back away from the anilox roll, starve, track or crawl out of a pan. In fact, the *PharmaFlex* inks may be pumped and/or used in enclosed doctor blade assemblies without leaking from or blowing seals like most UV inks.

Due to the fluid nature of the *PharmaFlex* products, printing these inks atop highly absorbent, porous, high re-cycle content or fibrous paper and board stocks may require the use of lower line anilox rolls to counteract the high absorption rate of these substrates. In some cases higher printing speeds (creating shorter absorption dwell times) can also allow the inks to sit high atop these materials before absorption occurs.

The smooth, glossy surface of *PharmaFlex* UV curable flexo inks combined with the receptive chemistry makes these inks easy to overprint or coat. Even so, the surface of the *PharmaFlex* inks may become less receptive with extreme exposure to high dose UV energy or extended storage at elevated temperatures.

Do not use defoamers or silicone based flow aids in the *PharmaFlex* UV curable flexo inks ! These materials will dramatically impair the ability of the *PharmaFlex* inks to accept any form of subsequent decoration or overprinting.

Clean application areas thoroughly after using other varnishes, inks or coatings, including the pumps, and replacing any hoses with cleaned or new hoses. Do not use spray lubricants at any time in the areas where *PharmaFlex* UV curable flexo inks are being applied.

Curing Properties

PharmaFlex UV curable flexo inks are formulated to cure fast and to cure deep even though finer line anilox rolls will deliver rich, true colors.

If utilizing even relatively coarse anilox rolls (440-500 lines per inch) to obtain coating weights around 6 microns (0.25 mils), and curing with one 400 Watts per inch (Wpi) lamp, *PharmaFlex* UV curable flexo inks will cure well at press speeds exceeding 250 feet per minute. Production speeds are normally far higher, as the high color density of the *PharmaFlex* inks allow for the use of finer line anilox rolls and corresponding reduced coat weights.

Degree of cure and UV ink resistance properties are inter-related. Make certain that the ink is cured well before evaluating adhesion, resistance properties and hardness. Although *PharmaFlex* UV curable flexo inks are fast curing, exhibit good adhesion to the substrate, and are relatively hard immediately after curing, maximum chemical resistance, hardness, adhesion and overall ink film strength will be attained after a 24 hour post-cure.

When cured properly, *PharmaFlex* inks are extremely heat stable maintaining all physical properties and color even at temperatures exceeding 260° F for 20 min. at 15 psi.

NOTE: Each UV curing unit should be manually set or programmed to operate at maximum power output, when web speed is 100 fpm or greater, regardless of settings for other inks or coatings.

Adhesion Properties

PharmaFlex UV curable flexo inks adhere to a wide range of materials. These products can be used on most films, paper and board stocks. Acetate, styrene, vinyl and metallized materials in particular should be thoroughly tested for compatibility with *PharmaFlex* inks or any UV curable product before production use.

Again, prior to utilizing the *PharmaFlex* UV curable flexo inks, test for compatibility with the substrate, inks, adhesives and glues that may be overprinted by the *PharmaFlex* inks or overprinted atop these products

The *PharmaFlex* UV curable flexo inks may be used for applications where extreme flexibility is demanded and where no edge lift or label curl is tolerated. Although *PharmaFlex* inks are fast curing, they are also resilient and will die-cut on even the tightest radius. These products will also fold, score or perf without chipping, cracking, or crazing when thoroughly cured.

Storage and Stability

PharmaFlex UV curable flexo inks have a full one year warranty if stored responsibly. When stored at temperatures between 60° – 80° F, these inks will remain fluid and cure well. Storage at temperatures outside this range, especially higher temperatures will rapidly and adversely affect shelf life and performance.

If for any reason the *PharmaFlex* inks exhibit a shift from normal physical properties, consult with your ACTEGA WIT technical representative for advice on use.

Product Line

PharmaFlex UV curable flexo products are available in, but not limited to, the following items:

Supreme White	Rhodamine Red
Jet Black	Purple
Process Black	Violet
Process Yellow	Reflex Blue
Process Magenta	Process Blue
Process Cyan	Green
Yellow	Mixing Opaque White
Orange	Mixing Black
Warm Red	Universal UV Reducer
Rubine Red	Universal UV Extender
Metallics	Ultra Lightfast