Speedex

High-performance, stay-open sheetfed inks...

Kerley Ink

What is Speedex?

Speedex is a unique sheetfed offset printing ink with features that printers really want. In one color mixing system, Speedex features:

- The ability to be used right out of the can.
- Extremely fast initial setting.
- Jobs printed with Speedex on paper can be handled 5 minutes after impression.
- Speedex develops good cure in less than 12 hours.
- Speedex can stay "open" on press overnight, even on copper rollers.
- Speedex will not "skin" in the can for days.
- Speedex's cure rate and hardness can be greatly enhanced with driers.
- Speedex has approximately 20% VOC content: low enough for use in California.
- Speedex uses a drier-free setting mechanism.

Sound too good to be true? Read on...

After years of hearing our customers tell us that they wanted a simple oil-based ink system that worked as well as our Maxi Set small offset ink product, we've figured out how to make one. Speedex embodies the same "stay open in the can and on press" features that Maxi Set has gained popularity for, but does so in an oil-based system that's suitable for the big litho presses. It took years of research to develop an ink system with such a combination of very popular features, and you can get them today. Just call and order Speedex!

How does Speedex set so fast?

Speedex is a true *quickset* ink. The word "quickset" is used widely to describe the drying mechanism where the initial "setting" occurs by means of the liquid portion of an ink (i.e.: solvents and oils) quickly seeping into the fibrous matrix of the paper substrate immediately after impression, leaving a dry layer of resin and pigment on top of the ink film. This "set" film feels dry to the touch and does not offset onto other sheets easily. Later, the quickset ink's film actually "cures" by chemically converting the vegetable oil-based portion of the ink through the process of oxidation polymerization, further anchoring the ink film to the substrate. What makes Speedex unique is its ability to achieve initial setting so rapidly, then start curing in hours without the aid of conventional driers like cobalt and manganese. To ensure maximum set speed and hardness of cure, Speedex uses no soy oil, but contains 25% vegetable oil.

Where can Speedex be used?

Use Speedex wherever there is commercial printing on paper substrates. Speedex works well on a wide variety of stocks including quality offset stocks, and coated stocks of virtually all basis weights. What makes Speedex so useful is its ability to set so rapidly on stocks that are even marginally absorbent such as high basis weight coated papers. Jobs can be turned around almost immediately, and excessive use of spray powder can be controlled.

What is Speedex compatible with?

Since Speedex is a *true* oil-based litho ink, it has a great deal of compatibility with many graphic arts chemicals. For example, ink conditioners and gel reducers will all work well with Speedex inks. Simple reducer solvents like "52 oil" or gelled solvents work best, since they won't interfere with Speedex's quicksetting mechanism. Other chemicals that work well with Speedex include fountain drying stimulators and wax compounds. Speedex works with just about any conventional sheetfed fountain solution, even the ones using alcohol substitutes based on glycol ethers. Also, the curing speed and hardness of

Speedex can be enhanced by adding metallic driers such as cobalt and manganese. Other driers such as zirconium and cerium compounds can also be used successfully. Speedex is strong enough to be modified with 10-15% of other items to change its performance characteristics where necessary.

Speedex can be used for special purposes, too...

The ability of Speedex to convert and form tough films should not be overlooked. This can be a very helpful asset when you encounter tough assignments like semi-porous stocks, packaging applications and even some nonporous stocks like polyester films. We recommend adding 2% of cobalt and 1% of manganese driers (at 6% metal content) to quickly initialize the oxidation curing mechanism. Remember that Speedex loses its "stay open" property when drier is added, but skin in the can is usually quite flexible and simple to remove.

How about overprinting with Speedex?

Overprinting with overprint varnishes or coatings on top of Speedex is not a problem. Like many quickset inks, Speedex contains high-melt polyethylene wax and a trace amount of PTFE wax. This means that, with the proper precautions, Speedex can be used with or without overprinting right out of the can. Here are the recommendations we make regarding overprint varnishes and coatings:

Overprinting with conventional oil-based varnishes...

Speedex works best with these varnishes when they are applied in-line right after impression. Adhesion was excellent when done this way. We recommend that conventional varnishes be applied no later than 36 hours after impression.

Overprinting with water-based coatings...

Speedex works well with these varnishes when applied in-line right after impression. Results may vary with different coatings. Overall results were satisfactory for all water-based coatings tested. Jobs run on most paper stocks with unmodified Speedex inks can wait 48 hours before overcoating.

Overprinting with ultraviolet cured coatings...

Speedex can be used with UV-cured coatings. It is strongly recommended that a water-based primer coat be applied in-line to the printed job *before* any UV coating is applied. It is important to apply a water-based primer coat and UV coating as soon as possible after impression.

What colors does Speedex come in?

Speedex is available in Process Black, Process Blue (Cyan), Process Yellow, and Rubine Red (aka: Process Red or Magenta), Warm Red, Reflex Blue, Mixing Green (Phthalo Green), Rhodamine Red, Purple, Violet, Neutral Black (Mixing Black), and a transparent extender. Like many other ink systems we have introduced, all colors are properly balanced to work with the most popular color mixing system.

How does Speedex need to be handled?

Speedex is one of the most easy to handle lithographic inks ever made. Since Speedex is an essentially drierless formula, there is no need to worry about such factors as skinning or drying overnight when the ink is exposed to air. As a matter of fact, air bubbles are no longer a worry, so Speedex does not have to be deaerated before packing off in tins. As long as driers are not used in Speedex, air and air bubbles are not a factor in handling and packaging.

Speedex can withstand extended periods of storage: as long as a year at normal room temperatures. It is important to keep stock of Speedex inks covered and skin papered if long periods of storage are anticipated. Stock of Speedex this old may have to be "freshened up" on a mixer, but there will be little if any wastage as the most significant change is a slow increase in viscosity over many months. This is the way most litho inks behave over time, anyway.

For low volume production, Speedex can be packaged by scooping out of the factory container and weighing directly into tins. Air bubbles are not a significant factor. If three-roll mills are to be used to package inks, it is very important to run the mill as loosely as possible, so as to not "break" the gel structure of Speedex. Remember, Speedex comes completely milled from the factory, and no further milling is necessary. For high-volume production, Speedex can be purchased in drums and pumped directly into tins.

How is Speedex packaged?

Speedex finished inks are available in several types of packaging. Our standard package is a 55 gallon steel straight-sided drum. Net weight is 400 lbs. (181 kgs.) for colors, and blacks weigh 425 lbs. (193 kgs.). List prices for Speedex inks are based upon this standard package.

Speedex finished inks are also available in 3.5 gallon plastic buckets that hold 30 lbs. (13.6 kgs.) net for both black and colors. One kit is the minimum order per color. There is an upcharge over the standard drum price for packaging in 3.5 gallon buckets. Please see the finished inks price list for exact information regarding the upcharge for 3.5 gallon buckets.

Speedex Extender is available in both 55 gallon drums and 15 gallon metal kits (110 lbs/ 50 kgs net). It will only be available in 3.5 gallon buckets for trial or sample purposes. Please see the ink components price list for exact information regarding the upcharge for 15 gallon kits.

Custom labeling and drop shipping is available for all Speedex inks.

Free samples are available by contacting...

Kerley Ink

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