

Mark Andy Always on Look-Out

Staying the same is not an option at Mark Andy.

As technology, the industry, and our customers' needs continue to change rapidly, our company is committed to developing and supporting innovative applications.

Cold Foil Offers New Solution

If you are looking for ways to reduce costs and follow simpler work processes while continuing to provide customers high quality printing, cold foil may be your answer.

Cold foil stamping is relatively new to the marketplace. More and more companies have begun to offer cold foil transfer over the past few years, according to Kevin Davis, Northwest Flexo's founder and president. His company has been offering customers cold foil for about three years.

"We became interested in it by reading and studying the industry and its technologies. After much consideration, we decided it made sense to offer cold foil to our customers; it fit our label business so well," explains Davis.

In a nutshell, here's how die-less cold foiling works.

1. An adhesive printed by a photopolymer plate is mounted on the print station, usually the last one.
2. The uncured tacky image is transferred to the face stock, which is either dried or UV cured depending on the type of adhesive used.
3. A web of foil is then run between a nip and a pressure roller and is laminated onto the face stock.
4. The web of foil material peels away from the areas of the face stock that have no adhesive, and the waste foil material is removed by the rewind.

The outcome is products with a flashy metallic look at a fraction of the cost or work of the traditional hot foil stamping.

Advantages

- Faster production speed
- Lower tooling costs
- Easy registration of foiled material
- Works well on most substrates
- More cost effective for short runs
- No additional tooling required

"We spent quite a bit of time, effort, and expense developing our own methods to produce cold foil transfer. Not everybody is successful in their efforts to offer cold foil. About 90 percent who try it, fail. We feel we've been successful in our offering and that it's been of value to our customers," Davis says.



One of the most challenging aspects of cold foiling is getting all the ingredients right. "Everyone's developing cold foil on

their own. They have to find their own way," he says.

Mark Andy has addressed three issues that many companies face as they try to deliver cold foil, according to Keith Kuechler, applications engineer at Mark Andy.

One, the adhesive must be activated prior to marrying the cold foil to the carrier substrate. "To accomplish this requires the dryer or UV lamp to be mounted in a horizontal position between the print station and the nip point of the materials. This position prevents the adhesive from touching any idler roll surfaces prior to the nip point," Kuechler explains.

Two, due to the type of adhesives used, the dryer only activates the adhesive and causes it to become tacky. "Our solution is to increase the web path and dwell time of the materials after they are married together to allow the adhesion to become even better."

Three, noticeable rough edges around the printed image and possibly pin holes within the printed area appear when stripping away waste of the foil from the printed image.

"We have found embossing or nipping a second time after the material is married together and has traveled

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through the extended web path enhances the quality of the cold foil."

"We're trying to become even better versed on cold foil transfer to help our customers enhance press capabilities, quality, and product costs. As a result, we're developing alliances with other companies working on cold foil as well as contributing to research and development efforts."

For instance, in October 1999, Mark Andy participated in the opening of Akzo Nobel Inks Corp. USA's Center for Technical Excellence (CTE), which will provide state-of-the-art training and testing of various products and applications, including cold foil. One project being worked now is developing a UV adhesive and UV varnish for cold foiling that meets United States environmental standards.

Mark Andy, as a "co-supplier partner" in the project, houses an 8-color 4150 combination press at the Center to assist in testing, evaluating, and optimizing existing and new products in conjunction with Akzo's Research and Development Department.

While issues remain to be resolved to perfect cold foil industry-wide, Mark Andy remains committed to developing and supporting innovative applications to serve our customers – and theirs -- with the highest quality product at the lowest possible cost. 

