

THE INNOVATION OF PHOTOPOLYMER EMBOSSING

The concept of photopolymer embossing is the application of hard durometer male and female photopolymer plates applied to two dieblanks in a rotary die station on either the flexographic or letterpress printing press. Photopolymer embossing is an alternative to embossing with heavy steel-engraved cylinders due to much less expense and faster turnaround.

What Are Photopolymer Embossing Plates?

These plates are a specially formulated photopolymer which, when using proprietary techniques, produce plates which have sufficient durometer to withstand the extreme pressures of embossing.

How Do We Create the Embossers?

We need a digital file, preferably created in Macintosh EPS or AI format with the dieline in place. It is difficult to emboss a photograph or a four-color image unless a vector file that we can work with has been created.

Specifications of the following information are needed to correctly distort and compensate for the film manufacture, prior to making the plates --

- Press Type
- Cylinder Size
- Step-and-repeat dimensions (die configuration)
- Lead Direction
- Substrate Specifications
- Sample of area to be embossed, if available
- Substrate width (please allow 3/8" both sides of die, if possible)

Create Printing Plates to Fit the Embossing Plates

It is recommended that Trinity Graphic image the films and plates for printing the colors which will need to register to the embossing plates. This will assist in more accurate registration and reduce press set-up time. We can work with any digital media.

Proofing the Photopolymer Plates

Trinity Graphic has the capability to demonstrate the embossing effect on a digital proof. This proof can provide a first glance at the embossed look of your artwork, and can be an appropriate media for initial design layouts, photo shoots or market research. It should be noted that several alternative embossing techniques can be demonstrated without the high expense of a press run.

Tooling and Gears

To obtain the specially constructed dieblanks and gears required for this technology, we recommend RotoMetrics (636-587-3600). Your local representative from RotoMetrics will be able to assist you, as they have generated cylinders to suit virtually every flexo and letterpress machine on the market, and offer fast turnaround, competitive pricing and expertise with this technology.

Positive Aspects Over Existing Engraved Cylinder Technology

- Inexpensive in comparison
- Improved turnaround
- Reduced shipping costs
- Reusable dieblanks for multiple uses
- Overnight shipping of replacements
- Suitable for Braille applications
- Create stock patterns
- Quality comparable
- Opens short run opportunities in one pass

Further Information on Photopolymer Embossing

We are very excited about sharing this technology with the flexo, offset, and letterpress industry. As a full-service pre-press and platemaking facility, we are available to answer any questions, assist you with set-up, produce your print and embossing plates, and give you recommendations on choosing your cylinders, anilox rollers, ink, etc.

We can be reached daily at 941-355-2636, by fax at 941-351-9621, via e-mail at tgflexo@trinitygraphic.com