

PRINTTHIS

>> Chemically Embossed

It's no accident that leafy, springtime imagery was used to illustrate the reticulated coating technique on the front cover of this month's issue—GAM's first annual listing of North America's "greenest" print firms. To achieve dimensionality, the leaves' veins were accentuated with overprinted Hybrid UV Effect Varnish from Environmental Special-

inline with UV lamps in the interdeck unit over the impression cylinder. This is when a chemical reaction took place, which is why Ryobi calls the technique chemical embossing: The overall sheet is flooded with UV coating, also from Environmental Specialties, and cured by the UV unit in the delivery to produce a high-gloss effect. When this coating hits the

This 78,000-run job printed two-up on 80-lb. Camelot gloss cover, a No. 2 grade private-label sheet (in 20x26" size) from xpedx.

Printing units feature double-diameter impression cylinders and transfer drums with large curvature ratios. The press also has a Harris & Bruno flexo blanket flood coater delivering to an anilox chamber and, from there, to the blanket. The system toggles between UV and aqueous coating with the push of a button, Hayes says. Stock also can be switched out automatically—an option allows the 755 to print on up to 31-pt.

The printer tested eight versions of the cover on press before the final approach was determined. In prepress, Stevenson created the spot-coating file in Adobe Photoshop and supplied Designer Graphics with final, print-ready files (sample, left) using Artwork Systems ArtPro software. Stevenson also uses Artwork's NexusRIP and proofed the art with a Kodak Approval system. The printer then exposed plates on a Trendsetter.

The project began as a four-color process job using Fusion hybrid-UV inks, from INX International, which are compatible with conventional rollers and yield a denser UV lay down. (Gloss-back is minimized when Fusion inks are UV coated.) The black—laid down first on this job—cures at up to a 1.8 density. On this press, ink is dispensed via cartridges in a Pamarco Sentinel Ink Management System, helping to reduce waste.



>> **Spot UV dull, reticulating varnish, which Ryobi calls "chemical embossing," can make already vibrant images spring from the page.** This month's textured front cover was printed by commercial/trade shop Designer Graphics, Tyler, TX, on a three-quarter-size Ryobi 755 UV press with interdeck dryer and a pair each of infrared dryers and UV curing units.

ties. Varying line screens create vignettes: Note the shadow area of the large leaf, for example.

The dewy water droplets were enhanced thanks to a recommendation from premedia experts at Cincinnati's Stevenson, Inc., which suggested a reticulated drop shadow for each droplet. The end result is matte-like, causing the gloss to separate.

The hybrid-UV varnish was applied via a Kodak Sword thermal CTP plate in the Ryobi 755's fifth printing unit—but only where the reticulation was desired. The special varnish and hybrid-UV inks were flash-cured

overprinted varnish, chemistries react and reticulation results—the smooth-grain gloss divides from the dull, leathery coating.

"With that much coverage, we'll also run sheets through one, maybe even both IR [infrared] dryers," says Garrick Hayes, a 22-year industry veteran and GM at Designer Graphics' 40,000-sq.ft. Tyler, TX plant, which purchased the 5-color UV press from

xpedx Printing Technologies and installed it 16 months ago. "Even though IR dryers are for conventional [print], we've found that they help UV flow out better." Because the infrared lamps heat up the sheets, stacks need to cool completely. From the IR dryers in the extended delivery, sheets move on to UV curing.

The \$7.5-million, 36-employee commercial/trade printer has the six-up 755 XL model, which accommodates up to a 23x31" sheet size. The custom-built press features interdeck UV and IR dryers from Eltosch Torsten Schmidt.

>> www.ryobi.xpedx.com, eltosch.de, harris-bruno.com, pamarcoglobal.com, inxinternational.com, graphics.kodak.com, artwork-systems.com, adobe.com and xpedx.com