

# Book Business Magazine

## Synthetic Paper, Environment's Friend or Foe

*Follow up article to "The Virtually Indestructible Book."*

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Synthetic paper. A bit of an enigma, and a looming possibility for publishers to consider. But a clear view of this curious material often is clouded with skepticism of its potential for use.

In the May/June 2004 issue of BookTech Magazine, the article "The 'Virtually Indestructible' Book" made some waves among readers. The article delved into the deep synthetic-paper abyss, exploring some book projects that have opted or could opt for synthetic paper over "real" paper, such as cookbooks, lifeguarding manuals, boating books, maps, gardening books, emergency preparedness guides, children's books and especially bathtub books. Any book that needs to be durable and possibly waterproof—'virtually indestructible,' as Greg Wittstock, president of Aquascapes Inc., described his four-color instruction manual, the "Pond Builder's Bible"—might be a prime candidate for synthetics.

Once the article ran, questions began coming in regarding this non-paper paper. Even the editors were a bit surprised at the level of interest expressed by the readers. One question was definitely predominant. While the article answered many questions about synthetic paper's durability, coatings, any special ink requirements, speed on press, and manufacturers, there was no mention of synthetic paper's environmental friendliness, largely because this information was difficult to track down in time for inclusion in the article.

However, BookTech Magazine staff was since able to elicit some answers from Yupo Corp., one of the largest producers of synthetic paper.

Dave Jeffers, technical services manager for synthetic-paper manufacturer Yupo Corp., shared his expertise on the subject of synthetic paper's environmental friendliness, which he says has been a topic of ongoing research at Yupo.

### **No Trees Were Harmed in the Making of This 'Paper'**

According to Jeffers, "Synthetic papers are typically made from different types of plastic, like polyolefin resin or polypropylene. Because synthetic paper is entirely inorganic, no trees are utilized in the manufacturing process."

Instead, synthetic paper is created through "the extrusion of melted plastics, which are then stretched to create the flat, multilayered surface and cut to required dimensions. The process takes place in a computer-controlled, sterile environment, minimizing waste and potential hazard," Jeffers explains.

### **Any Hazardous Emissions?**

"No ozone-layer-threatening emissions and nearly no waste-byproducts are produced during the manufacturing of synthetic paper, which requires no bleach, chlorine, peroxide or halogens to achieve its brilliant whiteness," says Jeffers.

## **What About Disposal?**

Many BookTech Magazine readers responded to the May/June article with questions about synthetic paper's recyclability: Can it be recycled? Does it require special disposal methods?

Or is it simply fodder for the landfill? According to Jeffers, synthetic paper is disposed of in one of three ways: recycling, incineration or certified landfills.

"It's 100-percent recyclable. Recycled polypropylene plastic, for example, is recovered as plastic resin, and may be used in food containers, yarns, fabrics, upholstery, luggage and car seats. The recovered resin demonstrates the same performance as virgin plastics. Polyolefin can be recycled along with other plastic packaging materials and does not need to be separated," notes Jeffers. "Synthetic paper yields only carbon dioxide, water and ash when properly incinerated. It generates no detectable amounts of sulfur, chlorine or dioxin gases, and less heat when incinerated than traditionally manufactured paper, making the process more cost-effective."

## **A Few Things to Consider**

If or when synthetic paper's usage in the marketplace increases, more manufacturers will likely explore its environmental impact further. A few questions still remain, but at least a few basic environmental attributes are confirmed.

"It's a good thing that there's no 'endangered forest' fiber in synthetic paper," says Tyson Miller, founder and director of the Green Press Initiative, an industry organization committed to promoting sustainability. "However, I'd need to see a life-cycle analysis on the paper before pushing it as a viable environmental option for publishers. I'm also curious as to whether synthetic paper can be manufactured from recycled plastic."

## **Any Questions?**

As book publishers begin exploring this "new" breed of "paper" (synthetics have been around for 30-some years, but are just now being explored on some scale in the publishing industry), more questions like the one posed by Tyson Miller of the Green Press Initiative will arise, and BookTech Magazine will continue to find answers and share them with you.

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