



## Frequently asked questions about *Make Paper Products Stand Out* answered by editors Martin Hubbe and Scott Rosencrance

### ***What is the goal of this book?***

The goal of *Make Paper Products Stand Out* is to help those working within our industry to learn to use functional additives as a tool to gain competitive advantages.

### ***Who should buy this book?***

The editors think that this book may be especially appropriate for papermaking technologists, managers, entrepreneurs, product developers and marketers, as well as university faculty and students at a range of levels. New people are continually entering the field of papermaking, often just due to reassignment of their responsibilities; we had such people in mind during the planning of this book. Another group of people who can benefit are those with a lot of papermaking experience. Such individuals often can expect to find a few gems of information that they can put to work in their ongoing projects.

### ***What types of additives are covered in the book that can help me fine-tune my products?***

Nice question. Fine-tuning is a great way to describe what keeps papermaking technologists busy. The challenge of papermaking is that so many properties have to be fine-tuned simultaneously. Chapter 2 of the book gives some background on dyes and how to adjust the color or “shade” of paper. Chapter 3 covers additives and methods that can affect sizing and resistance to fluids. Chapter 5 describes some additives that can affect tactile and frictional attributes of paper. Chapter 9 describes some of the additives and methods that can be used to fine-tune printing paper production. For those who want to learn about the full range of chemical additives used on paper machines, TAPPI teaches an annual course called “Introduction to Wet End Chemistry”.

### ***Will you please provide an example of how the use functional additives can help me leverage our investments?***

Suppose that your paper mill has made investments to achieve high uniformity in a printing paper grade, but the margins are low. There can be a lot of competition, especially in widely used grades. The same papermaking equipment could be used to make, say, a grade of paper for packaging or serving of food. Such products require a lot of attention to sizing agents, which are covered in Chapter 3 of the book. By working together with a client to make new developments in food delivery or some other application of paper, there is potential to achieve higher profit margins. Expect there to be challenges too. When attempting to innovate, one can expect to have to run more small orders on the paper machine, making life more hectic.

For another example, suppose that your mill is making linerboard for corrugated boxes. You might be able to move your products into a different strength category by attention to dry-strength agents, which are covered in Chapter 7. Making changes to the papermaking additives is a great way to innovate, since often it is possible to change the paper properties without a major outlay in modification of the papermaking equipment.

***What is the best additive to increase brightness?***

Great question! This question is addressed partly in Chapter 2 of the book, which is titled “Colorants: A way to set your paper products apart. You might ask, “why would I use a colorant to increase brightness?” The answer is that fluorescent whitening agents (FWAs) are a kind of dye. They take ultraviolet energy that we humans can’t see and convert it to blue light that we can see. This is a great way to make copy paper look a lot brighter. Two other great strategies to increase brightness fall outside of the scope of this book, but you can learn about them from other sources. Optimization of the bleaching of your fibers is, of course, of paramount importance.

From TAPPI you can get a great book called [Pulp Bleaching: Principles and Practice](#). Another key strategy is to fill your paper with a bright mineral product such as precipitated calcium carbonate. Some background is given in a review article by Hubbe and Gill, (2016). "Fillers for papermaking: A review of their properties, usage practices, and their mechanistic role," *BioResources* 11(1), 2886-2963. DOI: 10.15376/biores.11.1.2886-2963.

***What are some topics in this book that that I will have a hard time finding elsewhere?***

All papermakers want to make money. Some of them do it in a literal sense, as described in Chapter 6 of *Make Paper Products Stand Out*. Ways to create bulky, three-dimensional, or foldable paper products are discussed in Chapter 8. Strategies for making paper more absorbent are described in Chapter 4.

***What do you consider to be some of this book’s key takeaways?***

- Discover new strategies that you can use to achieve differentiation of paper products to help you meet different performance requirements.
- Learn the principles by which different papermaking additives work and how they can add value to your paper products.
- Master strategies to consistently achieve paper product specifications.
- Consider ways to innovate, including novel approaches to address some customers’ new needs
- And of course, learn about a variety of functional additives.