

# Understanding Compounding

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By R. Wildi and C. Maier; Hanser, 1998 - \$34.95

This book is intended as an introduction to the melt processing of polymers and to the equipment used to perform this task. I view the audience for such a text as technical individuals not involved in compounding and for management in need of a succinct summary reference. One of the first things to note is the table of contents is four pages long and is very detailed. This provides easy reference and organization of the material. It is divided into six sections: What is Compounding, Pre compounding Operations, Compounder Types, Unit Operations, Post-compounder Operations and Evaluation of Compounders.

The bulk of the book (50%) centers on compounder geometries including both continuous and batch devices and has many figures. Each compounder section is divided with the same template to provide a short and uniform survey of the equipment, mechanics of operation and performance. The next largest section on Unit Operations (25%) presents a fairly geometry independent discussion of the mechanics and considerations of solids conveying, melting, mixing, devolatilization, pumping and reactive compounding. Other chapters discuss additives blending and feeding as well as post processing operations such as filtration and pelletizing. The final chapter deals with evaluating equipment performance and could be a book in itself. It would have been nice if the authors could have spent a little more time on this important subject especially given the intended audience.

Obviously, a book on the subject of compounding could be of encyclopedic proportions and reducing this to under 200 pages is a task well done. The references are not thorough as they might be in a review but are fairly representative of the subject and consistent with the scope of the book. What a review of this book can not easily convey is the effective sharing of the insights as to why things work the way they do. This reflects well on the many years that the authors have spent in the area. By the way, the book is available in paper back for \$34.95, a price well worth it.

- Ken Powell, Becton Dickinson Research Center