

Extrusion Dies for Plastics and Rubber

**Extrusion Dies for Plastics and Rubber, Volume 24, #1,
March, 97**

by Walter Michaeli 2nd Revised Edition Hanser Publishers, Munich, 1991

This is a basic text that intends to broadly cover the area of die design. As for most polymer engineering texts, it begins with a chapter on the description of polymer properties, followed by one on the isothermal flow in basic channels. Some methods for calculating the more subtle slip stick flow are briefly discussed. Computations for the more realistic flows with temperature distribution are then presented in their own chapter. As with most texts on melt flow, a discussion of the three dimensional formulation of the conservation laws is presented. Methods for solving them as finite difference or finite element are then described with some examples. The chapter concludes with a brief description of extrudate swell.

Applications are then the mainstay of the text. The next three chapters cover monoextrusion dies, coextrusion dies, and dies for elastomers. Basic dies, such as coat hanger, mandrel, and wide slit dies, as well as some specialty dies, e.g., dies for the production of nets, are discussed. Some design strategy is discussed for each of the types of dies. Emphasis is on the fluid mechanics of each of the die types, but a brief discussion of die mechanical integrity is offered, too.

Operational principles of die heating, handling, and calibration are featured in the last chapters. A short chapter on mechanical design is included in this section, which is an often neglected topic in many texts and articles on dies.

The book contains abundant references for more details on the many topics that are covered. Its intention to broadly cover design is well met, and the references provide means for obtaining the details of aspects of die technology.

- S. Derezinski Eastman Kodak Co.

Christian Hopmann, Walter Michaeli. This definitive book provides a comprehensive account of the full range of dies used for extrusion of plastics and elastomers. The distinctive features of the various types of dies are described in detail. Expert advice on the configuration of dies is given, and the possibilities of computer-aided design, as well as its limitations, are demonstrated. Fundamentals and computational procedures are clearly explained so that no special prior knowledge of the subject is required. The mechanical configuration, handling, and maintenance of extrusion dies are descri

Shah Abdullah Bin Abdulaziaz dies - Saudi Arabia King Abdullah bin Abdulaziz dies - king abdullah funeral video -. 1:58. Donna Douglas aka Elly May Clampett has died -- Elly May Clampett From 'Beverly Hillbillies' Dies at 81. 1:31. APJ Abdul Kalam Dies, Former President of India Kalam Died at 83. 2:04. Woman dies - set on fire. 1:31. National Geographic Photographer Dies During Dive. 10:19. Roger Federer - Hope Dies Last (HD).