Autodesk University 2012

Compression Molding Simulation of Rubber Materials

Kurt Hayden - Fenner Advanced Sealing Technologies
Xaishi Jin - Autodesk

Class Summary

This class will give an overview of the compression molding of rubber including material characteristics, the processes involved and tooling considerations. Difficulties encountered during the molding of rubber will be discussed. The opportunities that simulation of rubber molding processes may provide will be considered, including the current state of these types of simulation and thoughts on future enhancements.

Learning Objectives

At the end of this class, you will be able to:

- Understand the composition and characteristics of rubber.
- Conceptualize how rubber is compression molded.
- Be aware of the difficulties of predicting the results of rubber molding.
- Consider how flow analysis can help reduce uncertainties in the development of rubber products.

About the Speaker

Kurt is the Vice President of Engineering and Technology for Fenner Advanced Sealing Technology, a Fenner company and works from the CDI Energy Products and EGC Critical Components facilities in Humble, Texas. He is a Past President of the South Texas Section of the Society of Plastics Engineers and currently sits on the Education Committe of the Greater Houston Manufacturing Association.

Kurt received his Ph.D. in Industrial Engineering from Western Michigan University, where he taught plastics processing and mold design courses and supervised research activities. While at WMU, he worked closely with the Moldflow Corporation and The Moldflow Center for Design Excellence. His research involved many aspects of the design, processing and quality assessment of plastic products including the prediction of the occurrence (and detection of) sink mark defects in injection molded products.