Tuesday 10:20 Flash Presn. + Q&A IP37

Computational rheology et al. with OpenFOAM® computational library

J.Miguel Nóbrega

Insititute for Polymers and Composites, University of Minho, Guimarães 4800-058, Portugal

The current capabilities of numerical codes, able to model very complex processes, and the existing powerful computational resources, clearly promote the advantages of employing numerical modelling tools to assist any design related tasks. For more than a decade, the Computational Rheology Group, from the Institute for Polymers and Composites / University of Minho (IPC/UMinho), has been developing and exploiting modelling codes to aid the design of different tools, with a special focus on polymer processing applications. During the last 5 years, most of the numerical developments done at IPC/UMinho are based on the OpenFOAM® computational library. This talk aims to provide an overview of the computational rheology related work done at IPC/UMinho by a large group of researchers, in many cases in close cooperation with industry, and to report the advantages of using computational codes based on OpenFOAM® to support design activities.