

Zlín, October 20, 2019

A report on Esther Ramakers-van Dorp, the author of thesis

“Process-Induced Thermal and Viscoelastic Behavior of Extrusion Blow Molded Parts”

Doctoral Thesis submitted by Esther Ramakers-van Dorp is focused on a thorough investigation of the influence of process of extrusion blow molding (EBM) on the performance of the hollow HDPE parts. Rather surprisingly, this fundamental topic in the area of polymer processing is addressed in the literature very scarcely.

Ms Esther Ramakers-van Dorp started to investigate the changes in the structure and mechanical properties induced by processing parameters in a bulk as well as local scale. For that she has developed the testing technique by merging DMA and microindentation. Her findings were accessed with carefully selected statistical analytical tools. Furthermore, as a follow-up she developed a model to obtain thermal expansion coefficients necessary for simulations and optimization of the EBM process.

Esther Ramakers-van Dorp was an active, careful and skilled student as documented by her papers published in the respectable journals of the particular field. During her PhD study at Tomas Bata University in Zlín she presented the particular results of her research on the top-ranked conferences relevant to her expertise.

Her thesis presents thorough systematic experimental methods, producing data on the subject, which are discussed with comprehensive references to the previous research in the field. By this thesis Ms Esther Ramakers-van Dorp demonstrates her ability to conduct careful and well-oriented scientific research at a highly satisfactory level.



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