Mass Production Tools and Process Readiness for Uniform Parts—Injection Molding Application - DTU Orbit (02/11/2019)

Mass Production Tools and Process Readiness for Uniform Parts—Injection Molding Application

A mass production always aims to produce uniform performing products. Production tools such as pressing dies, casting dies and injection moulds, play a significant role by producing uniform parts for achieving final products. Tool complexity increases when multiple cavities are present. These tools pass through several stages of quality maturation, before starting production, where the tool capability for part uniformity can be assessed, corrected and aligned to mass production variables. This research article describes the process of systematic understanding of the impact of variables and of finding opportunities to counter them. Application is assessed over a hypothetical plastic injection mould and found feasible. Proposed process could evaluate the tool capability for producing uniform parts, at its digital design verification and its physical validation.

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