

Optimization of the Transfer Molding Process by Implementation of Online Monitoring Techniques for Electronic Packages

Authors : Burcu Kaya, Jan-Martin Kaiser, Karl-Friedrich Becker, Tanja Braun, Klaus-Dieter Lang

Abstract : Quality of the molded packages is strongly influenced by the process parameters of the transfer molding. To achieve a better package quality and a stable transfer molding process, it is necessary to understand the influence of the process parameters on the package quality. This work aims to comprehend the relationship between the process parameters, and to identify the optimum process parameters for the transfer molding process in order to achieve less voids and wire sweep. To achieve this, a DoE is executed for process optimization and a regression analysis is carried out. A systematic approach is represented to generate models which enable an estimation of the number of voids and wire sweep. Validation experiments are conducted to verify the model and the results are presented.

Keywords : dielectric analysis, electronic packages, epoxy molding compounds, transfer molding process

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020