

Press release

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Advanced simulation options

SIGMASOFT® at Equiplast

At Equiplast 2021 SIGMA Engineering will present a first preview of the latest release of SIGMASOFT® Virtual Molding. In addition to a further improved warpage prediction, this includes numerous innovations for the calculation of parts made of several components as well as the possibility to analyze compression molding processes.

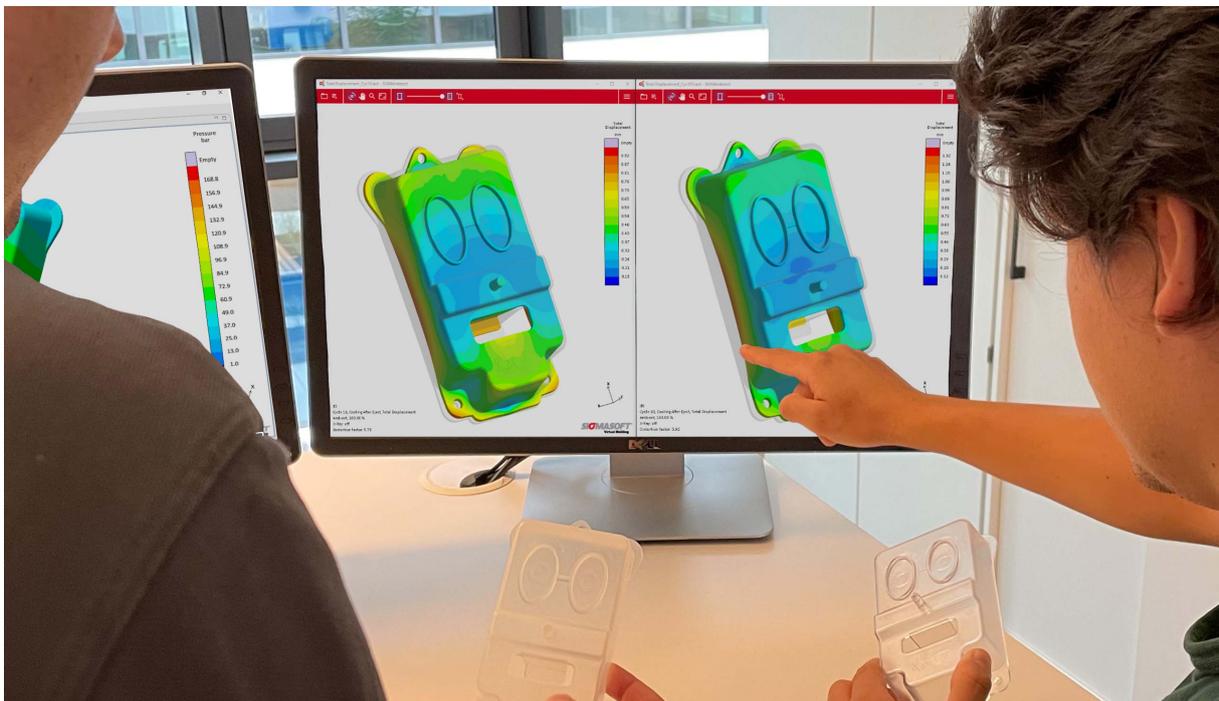


Fig. 1 - More accurate predictions and analysis of warpage results are possible with SIGMASOFT®

Advanced simulation options

Aachen, 26.08.2021 – At Equiplast (September 14-17, 2021) in Barcelona, SIGMA Engineering GmbH, Germany, will show a preview of further developments of SIGMASOFT[®] at the booth Gran Via, Hall 3, Level 0, Street E, Booth 23. Visitors will have the opportunity to learn more about the innovations as well as various examples of latest simulation approaches.

"After the long break without trade fairs, we are happy to again meet our customer and partner network in person and demonstrate the benefits of SIGMASOFT[®] as well as the innovations of Virtual Molding Technology and Autonomous Optimization" explains CTO Timo Gebauer. The latest version of SIGMASOFT[®] not only includes the possibility to simulate compression molding for elastomers, but also offers many innovations and improvements in the area of thermoplastics.

The prediction of shrinkage and warpage is essential for the correct design of thermoplastic components. Continuous work is being done to improve warpage prediction. For several years, a joint project with DUFNER.MDT GmbH, Germany, is under way to improve material data sets, especially for warpage calculation. In addition, there are new criteria to make the evaluation of component warpage even more accurate and easier for the user.

Another important innovation was made for the calculation of multi-component projects. Here, it is now possible to perform virtual Design of Experiments (DoE) and optimizations simultaneously for all components in order to match them optimally. SIGMA uses the "Butterfly" mobile phone holder to show an example of how parts made up of several components, as well as their tools and processes, can be ideally designed with the help of virtual molding and virtual DoE.

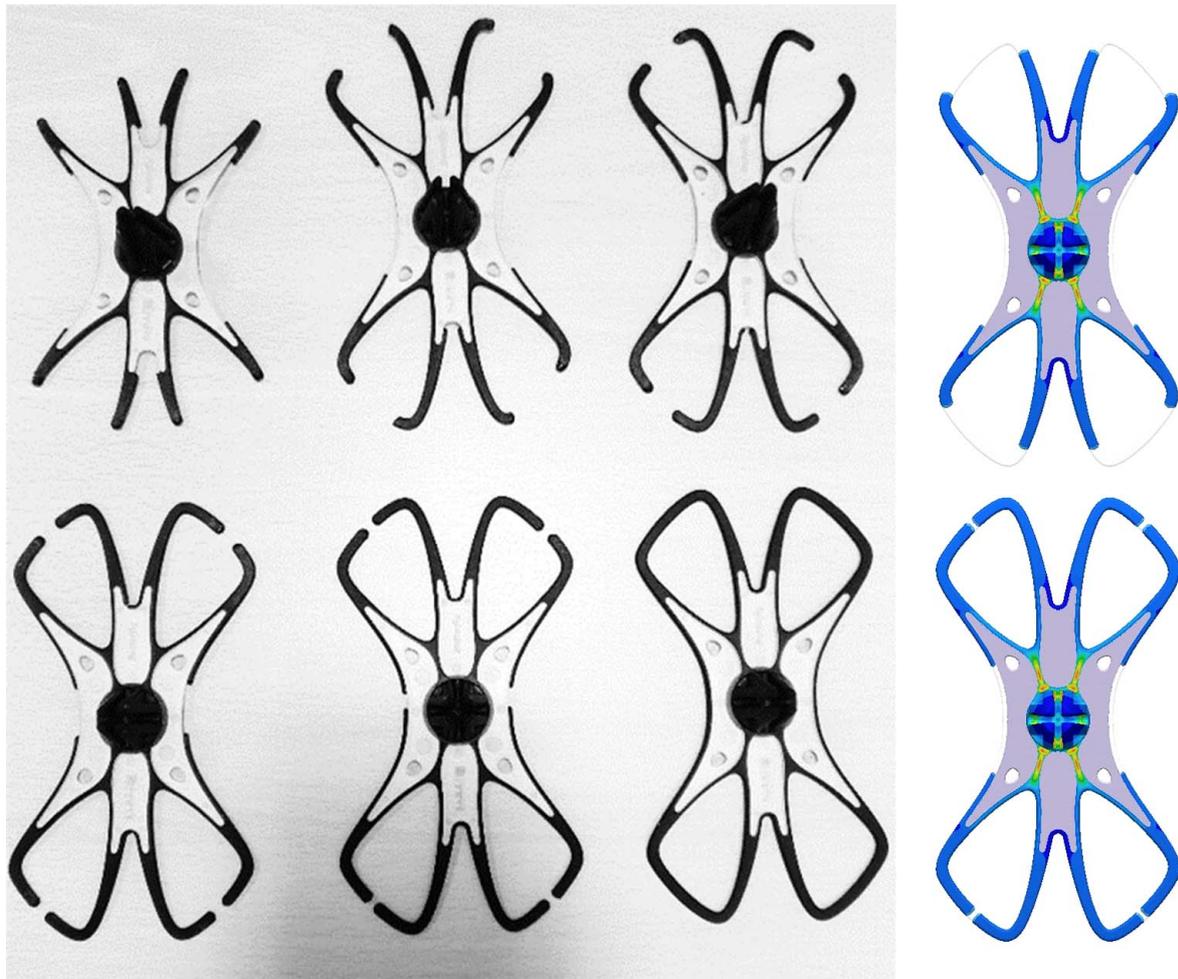


Fig. 2 - Mobile phone holder "Butterfly": comparison of reality and simulation in two different stages (see the middle images in each row compared to the simulation on the right).

For 23 years, SIGMA Engineering GmbH has been driving the development of the injection molding process with its simulation solution SIGMASOFT® Virtual Molding. This virtual injection molding machine enables the optimization and development of plastic components and molds as well as the mapping of the entire production process. The SIGMASOFT® Virtual Molding technology combines the parts 3D geometries with its tooling and temperature control system and integrates the parameters of the production process. This ensures a cost-efficient and resource-saving production as well as high-performance products - from the first shot.

SIGMASOFT® Virtual Molding integrates a multitude of process-specific models including 3D simulation technologies that have been developed and validated over decades and are continuously optimized. The SIGMA Solution Service and Development team supports its customers technical goals with application-specific solutions. The software company SIGMA offers application engineering, training, direct software sales and as a result, a software straight from its developers and designers to help give a solution service by engineers all over Europe.

SIGMA Engineering GmbH, headed by Managing Director Thomas Klein, has subsidiaries in the USA, Brazil, Singapore, China, India, Korea and Turkey. In addition, SIGMA supports its users worldwide in a variety of international companies and research institutions with its Virtual Molding technology.
Further information: sigmasoft.de

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