Advanced Training
SIGMA Teaches Injection Molding Know-How for Process Optimization

Together with its partners SIGMA makes injection molding processes understandable in seminars

The focus of a successful injection molding process is the understanding of the decisive influencing parameters. SIGMA Engineering aims to encourage this understanding during seminars in cooperation with DUFNER.MDT and GÜNTER Heisskanaltechnik. The seminar participants will deal with the basic question of how the injection molding process can be made predictable in order to avoid modification loops and trial-and-error on the machine.

Figure 1 – SIGMA hosts seminars on “Optimization strategies in the injection molding process” all over Germany in cooperation with VDI
Aachen, October 16th, 2019 – Injection molding tools and processes are often designed to the best of knowledge, but the produced parts do not meet the expectations and experience of previous projects. The reasons for such unforeseen behavior often lie in the specific material characteristics of plastics.

It is the goal of SIGMA Engineering GmbH to train the understanding of the background behind the injection molding process. The seminar series "Optimization strategies in the injection molding process", organized in cooperation with the VDI, exactly conveys this understanding. Its aim is to jointly develop recommendations for action in order to optimize the part, mold and process. The holistic approach of SIGMASOFT® Virtual Molding provides the basis for this goal. The seminar is divided into three sections:

- Deepening of material understanding, DUFNER.MDT GmbH,
- Interpretation of simulation results, SIGMA Engineering GmbH,
- Implementation of the simulation results into practice, GÜNTER Heisskanaltechnik GmbH.

During the seminar, participants gain a comprehensive insight into the optimization of their processes. Special emphasis is put on topics such as the determination and evaluation of process-relevant properties of thermoplastics, the use of simulation methods to correct warpage and the thermal and rheological design of molds and hot runner systems.

SIGMA CTO Dipl.-Ing. T. Gebauer is particularly pleased about the combination of three fields of specialist knowledge from the areas of material behavior (DUFNER.MDT), virtual injection molding (SIGMA) and practical application implementation with a focus on hot runner production (Günther Heisskanaltechnik). "We are very pleased to have set up this seminar series with our long-standing partners in order to be able to give interested injection molders a detailed look into the background of the injection molding process! Due to the positive feedback we hope to find further partners soon and to be able to offer international training courses promptly as we now do in cooperation with VDI", states Mr. Gebauer.
The next dates and locations for the seminars in German language are:

- 03. – 04.12.19, Bonn
- 20. – 21.04.20, Mannheim
- 28. – 29.07.20, Hamburg

They can be booked via the website of VDI-Wissensforum.

SIGMA (www.sigmasoft.de) is sister company to MAGMA (www.magmasoft.de), the world market leader in casting process simulation technology based in Aachen, Germany. Our SIGMASOFT® Virtual Molding technology optimizes the manufacturing process for injection molded plastic components. SIGMASOFT® Virtual Molding combines the 3D geometry of the parts and runners with the complete mold assembly and temperature control system and incorporates the actual production process to develop a turnkey injection mold with an optimized process.

At SIGMA and MAGMA, our goal is to help our customers achieve required part quality during the first trial. The two product lines – injection molded polymers and metal castings – share the same 3D simulation technologies focused on the simultaneous optimization of design and process. SIGMASOFT® Virtual Molding thus includes a variety of process-specific models and 3D simulation methods developed, validated and constantly improved for over 30 years. A process-driven simulation tool, SIGMASOFT® Virtual Molding provides a tremendous benefit to production facilities. Imagine your business when every mold you build produces required quality the first time, every time. That is our goal. This technology cannot be compared to any other simulation approach employed in plastics injection molding.

New product success requires a different communication between designs, materials, and processes that design simulation is not meant for. SIGMASOFT® Virtual Molding provides this communication. SIGMA support engineers, with 450 years of combined technical education and practical experience, can support your engineering goals with applications specific solutions. SIGMA offers direct sales, engineering, training, implementation, and support, by plastics engineers worldwide.

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