

Press Release

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LSR Technology Conference 2021

**A Conference Jointly Organized by SIGMASOFT[®], Arburg,
Momentive & Ewikon**

Singapore, September 26th, 2021 – With focus being set on trends, technology advancements and challenges in many aspects of liquid silicone rubber (LSR) part production, SIGMASOFT[®] and its partners held a LSR Technology Conference on the present & future of LSR injection molding, material innovations, virtual molding and efficient production solutions. The presentations aimed to present invaluable insight to the industry players, be it product and mold designers, polymer end users, molding and tooling experts, QA/QC, CAD/CAE specialists or R&D personnel.

Although the focus of the conference was on Asia market, we attracted a global crowd. There were attendees from a total of 29 countries and more than 300 participants in this virtual conference that was held on August 25th, 2021. The invited keynote speakers are subject-matter experts from the LSR production chain with years of experience and shared latest advancements and trends in the LSR arena.

Mr. Uwe Haupt from Arburg had the honor to start as first presenter and conveyed how Arburg, as one of the world's leading manufacturers of high-end machine technology for plastic processing, significantly influenced the development of plastic injection molding worldwide since 1980s. "One of the reasons is Arburg being the first company actively working together with material development companies, mold producers to develop the equipment for the process, shapes our reputation as a pioneer in the injection molding technology today." said Mr. Uwe Haupt.

As the first presenter of the conference, he covered the basics of LSR materials, present and future, as well as the trends in LSR injection molding. In his presentation, he shared how to achieve better control and monitoring of the process, new trends of using micro screws for reproducible dosage for extremely small shot weights and how electric drives for LSR processing from Arburg can help to lower overall energy consumption, generate lesser noise while achieving higher precision and better stroke and pressure resolution.

SIGMASOFT® has established itself as one of the technology leaders in polymer injection molding simulation. Mr. Devadass Vimalanand, from SIGMASOFT® presented on how the software was specifically developed to overcome today's challenges for development, mold design, production and optimization of the injection molding process. The case study he showcased in the conference was about an initiative to help fight the spread of the coronavirus - a face mask production project whereby 15 companies were partnered together and managed to get the product ready from scratch to series production in only 41 days.

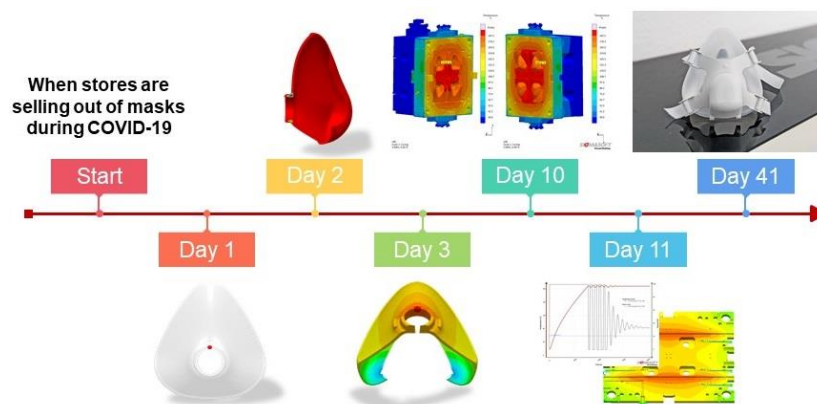


Figure 1: Sequence of events of the face mask production project –
from scratch to series production in only 41 days

“With complete set of the mold details, we completed the project within a day and obtained results for thermal balance, filling, cooling behaviour. This is one of the advantages of using the SIGMASOFT® Virtual Molding Approach apart from the accuracy. Predicting the real thermal behaviour is the first step to optimize the cycle

time which is the strength of SIGMASOFT® Virtual Molding.” said Mr. Devadass Vimalanand.

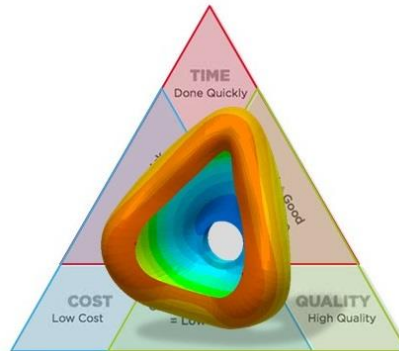


Figure 2: Golden triangle of project management

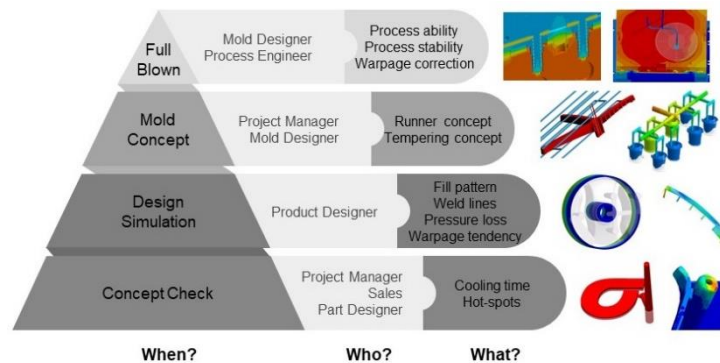


Figure 3: Level of simulation in different stages of product development

The third presenter, Ms. Vivian Tian from Momentive, a global leader in silicones and advanced materials, delivered on “Innovation LSR”. Her presentation gave insights on how Momentive create solutions for a sustainable world in the last 80 years as the industry leader for silicone innovation. At the same time, she also shared about the processing benefits of the soft-hard materials such as self-lubricating LSR and self-bonding LSR, and how these innovative materials enable flexibility in the designs which became valuable in supporting and improving our everyday life.

The last presentation was about the scientific investigation of the cold runner technology for LSR from Ewikon, a well-known supplier in hot and cold runner technology, founded about 40 years ago in Germany. Mr. Stefan Bernhard, who was trained and worked as a toolmaker since young, showcased the innovative

COOLSHOT cold runner technology which utilizes technologies and know-how from the hot runner sector to improve the LSR injection molding process.

The General Manager of MAGMA Engineering Asia-Pacific, Mr. Jan Eilers said: “Due to the Covid-19 pandemic, face-to-face meetings are delayed to an unknown date. We know there will be a day when most will be back in the office and it will be possible again to have in-person meetups and seminars with bigger crowds, but until then, businesses must make the most out of the current situation. To share the ever evolving technology with the industry even during these times is the motivation behind us organizing this virtual conference.” “Thanks to all our partners for bringing their expertise and experiences into this conference and to the attendees for engaging in the fruitful and interesting presentations and Q&A sessions in the live-broadcasted LSR Technology Conference 2021.” he added.

For the full conference programme, please scan here to find out more or follow our LinkedIn to join our upcoming events.



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 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.

SIGMA's operation in Asia started with the foundation of the company - MAGMA Engineering Asia-Pacific Pte Ltd in Singapore in the year 1996. With the increased demands and success of SIGMA and MAGMA in Asia, and to offer local services in strategic locations, we have since opened a joint venture in Korea, a wholly owned subsidiary in China and a branch office in India which has been converted to a wholly owned subsidiary of MAGMA Giessereitechnologie GmbH in July 2019.

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