

## PRESS RELEASE

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### **Polymer expertise in the fight against COVID-19**

#### **To boost vaccine production, Solvay, Ensinger and optek are safeguarding the value-added chain with precision components**

More than 180 million people have become infected with the coronavirus SARS-CoV-2, which has already mutated multiple times. Effective vaccines have been developed in record time, but billions of vaccine doses are needed to defeat the pandemic. In order to expand production, sensor components – among other things – are urgently required. Sensor bodies – like those produced for optek by Ensinger from a high-performance plastic – enable quality control in the biopharmaceutical process.

“Our sensors detect, for example, the temperature, pH or protein concentration of the liquid”, explains Jürgen Danulat, Managing Director of optek, a company specialising in inline process control solutions. “The component with the measuring interfaces to the medium is complex and difficult to clean. Instead of flow-through assemblies of stainless steel, increased use is therefore being made of what are known as Single Use Cells (S.U.C.), which are disposed of after use. They minimise contamination risks, downtimes and costs associated with chemical cleaning, sterilisation and validation of the plants.”

#### **High dedication to health**

“Producing the sensor bodies from medical-grade polymer, glass and metal requires highly precise manufacturing technology. We have all of this expertise and all of these resources in-house”, says Dr. Roland Reber, Managing Director at Ensinger. “But we are dependent on good suppliers like Solvay. We have been fully supported with detailed technical expertise and provided with specific solutions regarding regulatory compliance throughout the whole process”.

“Our value-added services enhance our high-performance polymers and support biopharma processing trends. Radel® PPSU demonstrates how critically important material technologies are to this fast-changing and demanding sector. We take a highly proactive approach to material testing to support regulatory compliance needs”, said Jesal Chopra, Vice President - Healthcare, Environment, Consumer, & Construction, Materials Segment at Solvay.

Solvay produces the material polyphenylsulfone (PPSU), marketed as Radel®, in different colour shades. The biologically inert resin stands out for its high mechanical, chemical and thermal stability, and can be cleaned and sterilised using all established methods. At the Ensinger headquarters in Nufringen, the granular material is extruded into stock shapes. Further processing of the sheets and rods with the product name “TECASON P MT” takes place at the Cham site, Bavaria, the Ensinger Group’s largest branch factory.

#### **Top quality – also in partnership**

“Here we process engineering plastics into complex parts with extremely narrow tolerances for our customers,” says Fred Nass, who is in charge of Ensinger’s Machined Parts division

with its approx. 150 employees. “Starting with stock shapes, we turn and shape the components with the aid of CNC processing centres, check the quality and after cleaning combine them into customised assemblies. We currently, in the cleanroom, configure and package around 100 versions of the sensor bodies for optek sensors as standard.”

Each processing step is precisely documented at Ensinger, and the quality continuously checked. “For us this is the same as with end customers from the medical and pharmaceutical fields, or from the aerospace sector: it’s all about premium quality and traceability along the entire value-added chain,” explains Fred Nass. “We benefit here from the fact that process-wise, Ensinger can be a one-stop shop – from raw materials delivery through to customer-specific packaging. We also have a very solid partnership with suppliers and customers. And that pays off in the long term – not just during the COVID pandemic.”

(3877 characters incl. spaces, 566 words)

More information:

<https://www.solvay.com/en/chemical-categories/specialty-polymers/healthcare>

<https://www.ensingerplastics.com/en/machining>

<https://www.optek.com/en/biotechnology/single-use.asp>

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## About

**Solvay** is a science company whose technologies bring benefits to many aspects of daily life. With more than 23,000 employees in 64 countries, Solvay bonds people, ideas and elements to reinvent progress. The Group seeks to create sustainable shared value for all, notably through its Solvay One Planet plan crafted around three pillars: protecting the climate, preserving resources and fostering better life. The Group’s innovative solutions contribute to safer, cleaner, and more sustainable products found in homes, food and consumer goods, planes, cars, batteries, smart devices, health care applications, water and air purification systems. Founded in 1863, Solvay today ranks among the world’s top three companies for the vast majority of its activities and delivered net sales of €9 billion in 2020. Solvay is listed on Euronext Brussels (SOLB) and Paris and in the United States, where its shares (SOLVY) are traded through a Level I ADR program. Learn more at [www.solvay.com](http://www.solvay.com)

The **Ensinger Group** is engaged in the development, manufacture and sale of compounds, semi-finished materials, composites, technical parts and profiles made of engineering and high-performance plastics. To process the thermoplastic polymers, Ensinger uses a wide range of production techniques, such as extrusion, machining, injection moulding, casting, sintering and pressing. With a total of 2,700 employees at 35 locations, the family-owned enterprise is represented worldwide in all major industrial regions with manufacturing facilities or sales offices.

[www.ensingerplastics.com](http://www.ensingerplastics.com)

**optek** develops, manufactures and distributes solutions for inline process monitoring. Photometric and electrochemical sensors are used to precisely measure relevant parameters, such as the pH, temperature, conductivity, colour, turbidity or UV absorption of a liquid. From a single source, optek also supplies system components such as analysers, converters, accessories and measuring cells for integrating the sensor technology into production. This includes Single Use Cells (S.U.C.), e.g. for biopharmaceutical production. optek-Danulat GmbH, headquartered in Essen, Germany, with locations in the U.S., Singapore and China, has completed more than 30,000 installations worldwide since its founding in 1984.

[www.optek.com](http://www.optek.com)

Press photos:



Fig. 1: Quality control is extremely important during the production of vaccines and other biopharmaceuticals. Single Use Cells made from special plastic (blue) form the interface between the measurement sensors and the liquid. Picture courtesy of: optek



Fig. 2: At Ensinger's Cham site, the high-precision machining of engineering and high-performance plastics takes place. Picture courtesy of: Ensinger

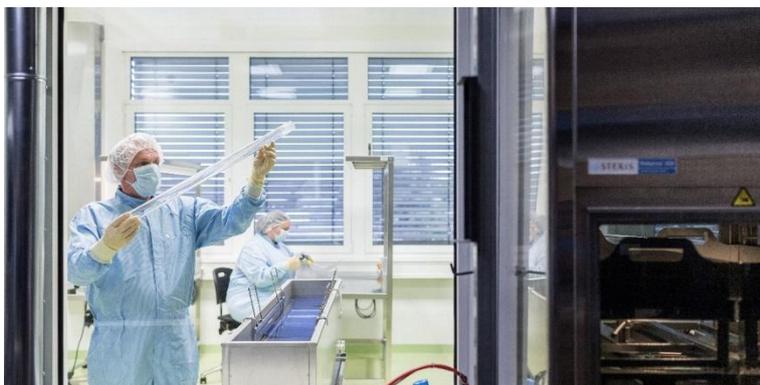


Fig. 3: The machined parts pass through a rinsing sluice (right) into the cleanroom where they are assembled and packaged. Large items such as the component for a bioreactor shown here are rinsed in a trough with highly purified water. Picture courtesy of: Ensinger



Fig. 4: An approximately hand-sized version of the Single Use Cell (S.U.C.) for inline process control in biopharmaceutical production. Picture courtesy of: optek

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