

HeiQ, WACKER, FHNW and Alchemie form a seamless supply chain to quickly serving the high demand for antiviral HeiQ Viroblock NPJ03

In the news that made headlines over the past month, including [CNN](#), Swiss textile innovator [HeiQ](#) launched [HeiQ Viroblock NPJ03](#), which received extremely high demand from all over the globe. Today HeiQ sends its gratitude to its key supply chain partners who made it feasible to support this demand in such a short time.

The international textile supply chain, from raw materials to chemistry to finished goods, has been disrupted due to COVID-19 pandemic. However, there is high demand for a solution to protect front-line emergency workers with virus-blocking textiles during this pandemic, and that is an enormous challenge during these times. HeiQ has shown its strength to rapidly finalize and validate an antiviral textile treatment to help with the fight, but said that it would not have been possible to serve the sudden and urgent hike in demand without a few close partners for a seamless supply chain that is intact, even during pandemic times. This includes everything from raw materials to production to application methods.

[Wacker Chemie AG](#) has been a reliable partner of HeiQ for the past decade for such innovative raw materials as silicone fluid and cyclodextrins. HeiQ Viroblock NPJ03 contains other essential raw materials for which the demand surged. WACKER was able to go out of their way to secure the supply of its cyclodextrins for what was needed.

Once supply of raw materials was secured, the production process of HeiQ Viroblock NPJ03 needed to be developed and optimized quickly for proper scale up. HeiQ's long-term research partner [FHNW School of Life Sciences](#) (University of Applied Sciences and Arts Northwestern Switzerland), based in the new FHNW Campus Muttenz, Switzerland, has been key to many R&D activities of HeiQ's innovation, including the latest HeiQ Viroblock NPJ03 technology. They stepped in with their chemical engineering know-how and a special permit to use their new Process Technology Center (PTC). On very demanding timelines, the FHNW School of Life Sciences developed quality protocols for initial pilot trials and provided first production batches to serve demands in nearby countries, such as Italy, where material for medical textiles was urgently needed. Previously, The FHNW School of Life Sciences was essential in supporting HeiQ to construct highly efficient manufacturing processes for many of its innovations. Procedures developed at FHNW's Process Technology Center are now used as standard protocols across all of HeiQ's manufacturing locations. The FHNW School of Life Sciences is continuing to support HeiQ with analytical know-how for HeiQ Viroblock NPJ03, and FHNW remains a strong partner for developing future technologies seeking to improve the life of billions of people. By partnering with the PTC at the FHNW School of Life Sciences in Muttenz, in coordination with many other

manufacturing locations around the globe, HeiQ was able to ramp up production to satisfy global demand in within one month's time.

With production secured, application of HeiQ Viroblock NPJ03 had to be suitable for medical personal protective equipment. Cambridge based [Alchemie Technology](#), who dyes and treats medical textiles with their breakthrough new process technology Novara, has successfully applied HeiQ Viroblock NJP03 together with their Endeavour waterless smart dyeing of the required color by the UK's National Health Service. Alchemie's Novara precision digital coating technology application is uniquely suited to apply HeiQ Viroblock NPJ03 technology with precision to medical textiles. Their digital on-demand process is non-contact and delivers product only where it is needed, on either one or two sides, with precise resolution. This reduces minimum run lengths, enables rapid changeovers and delivers ultimate flexibility in technical textile manufacturing.

"The team at HeiQ, being flexible and having strong relationships with our partners, worked with the teams at WACKER, FHNW and Alchemie to seamlessly procure raw materials, produce technology and apply product in a quick and efficient manner. Once again, we see the various parts of the supply chain come together in a united effort when needed to develop and produce products for every front-line worker that are more resistant to pathogenic viruses and bacteria. I am very proud of the teams from HeiQ and all our partners", says Carlo Centonze, HeiQ co-founder and Group CEO.

"WACKER meets the highest quality standards with its products. We are pleased to support HeiQ and make a contribution to the fight against the spread of the coronavirus" says Mark Harrison, Global Business Development Manager of German-based Wacker Chemie AG. Prof. Dr. Falko Schlottig of the Swiss-based FHNW School of Life Sciences adds "As a long time R&D partner of HeiQ, we are honored to offer both our expertise and our excellent infrastructure, especially the all-new Process and Technology Center, to make this key product to help fight the global pandemic." Simon Kew, Managing Director of UK-based Alchemie Technology says, "Our recently developed Novara precision digital coating process is the best platform to apply HeiQ Viroblock NPJ03. We are glad to be working alongside HeiQ on this project."



HeiQ's key supply chain partners to support high demand for HeiQ Viroblock NPJ03 in such a short time (image provided by HeiQ)

About HeiQ

Founded in 2005 as a spin-off from the Swiss Federal Institute of Technology Zurich (ETH), HeiQ is a leader in textile innovation creating some of the most effective, durable and high-performance textile technologies on the market today. HeiQ's purpose is to improve the lives of billions of people by perfecting an everyday product: Textiles. Combining three areas of expertise – scientific research, specialty materials manufacturing and consumer ingredient branding – HeiQ is the ideal innovation partner to create differentiating and sustainable textile products and capture the added value at the point of sale.

About WACKER

WACKER is a globally active chemical company with some 14,700 employees and annual sales around €4.93 billion (2019). WACKER has a global network of 24 production sites, 23 technical competence centers and 51 sales offices. Using advanced biotech processes, the business unit WACKER BIOSOLUTIONS provides tailored, innovative solutions and products to the life-science sector – including pharmaceutical proteins, cyclodextrins and fermentation-generated cysteine.

About FHNW School of Life Sciences

Based in Muttens near Basel, the FHNW School of Life Sciences is part of Europe's largest life sciences center and lies at the heart of pharmaceutical and medical technology, the chemical industry and environmental and biotechnology. It is here that FHNW trains skilled specialists and comes up with solutions to the social and economic challenges of tomorrow. FHNW is committed to developing new preventive and therapeutic products and services, improving people's quality of life and promoting a sustainable attitude to the environment.

About Alchemie Technology

Founded Alchemie Technology is reinventing manufacturing with the industrial-scale implementation of digitally-defined materials science technology platforms. Inspired by digital ink-jet printing, Alchemie is pioneering the application of digital fabrication technologies to a significantly broader range of materials, ranging from high viscosity liquids to solid powders. Alchemie's technology is finding applications in a wide range of industries – ranging from textiles to





pharmaceuticals – unlocking the benefits of digital manufacturing to enable step-changes in productivity, flexibility, waste reduction and delivering breakthrough new product design opportunities. Alchemie Technology's textile solutions: Endeavour Waterless Smart Dyeing and Novara Digital Precision Coatings are breakthrough technologies that deliver radical productivity improvements, product innovation opportunities and dramatically reduce the environmental impact of dyeing and finishing operations.