

Climate-neutral by 2030

Pioneering spirit and responsibility are core elements of the SCHOTT spirit. Consequently, the company wants to step up its efforts to combat climate change and has declared 'Zero Carbon' a strategic goal.

TEXT: DR. JÜRGEN STEINER

ACTION PLAN FOR 'ZERO CARBON'

Energy
efficiency



Green
electricity



Technological
change



Compensation



Even if some still refuse to believe it, science has long since proven that progressive climate change is one of the greatest challenges of our time. If we do not succeed in limiting the global rise in temperature, the livelihoods of more and more people will be threatened. Against this backdrop, around 200 countries committed themselves to limiting man-made global warming to 1.5 degrees Celsius in the Paris Climate Agreement in 2015. And the European Union has set itself the goal of making Europe the world's first climate-neutral continent by 2050.

SCHOTT is much more ambitious and wants to become a climate-neutral company by 2030. No other company in the specialty glass industry has set itself such an ambitious goal to date. "All social players must assume responsibility for the future of our planet. We want to make an active contribution to climate protection," explains Dr. Frank Heinrich, Chairman of the Board of Management of SCHOTT AG. With this in mind, the company has made the goal of 'Zero Carbon' one of the pillars of its new Corporate Strategy.

GLASS PRODUCTION IS ENERGY INTENSIVE

As a manufacturer of specialty glass, SCHOTT requires a great deal of energy – similar to companies in the plastics, steel, paper, and construction materials industries that are positioned at the beginning of the value chain as material manufacturers. Specialty glasses and glass-ceramics are melted in large melting tanks at temperatures of up to 1,700 degrees Celsius. Until now, the melting tanks have been heated with either natural gas and heating oil, both fossil fuels, or electricity. Due to the high energy requirement, the climate-relevant footprint amounts to around 1 million tons of CO₂e (CO₂ equivalents) per year. This equates to roughly the CO₂ emissions of a city in Europe with 150,000 inhabitants.

ACTION PLAN WITH FOUR MAIN AREAS

"On our way to climate neutrality, we want to reduce, avoid or compensate for climate-damaging emissions," says Chairman of the Board Heinrich. The action plan comprises four main areas: Increasing energy efficiency, switching to green electricity, technological change and compensating for technologically unavoidable emissions.

The technology Group has been working on improving its energy efficiency for decades. The introduction of oxy-fuel melting technology and the increasing use of electricity to heat the melting tanks since the 1990s have already helped the company reduce its specific energy consumption by over 30 percent. The experts are constantly working to identify and exploit further

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energy-saving potential within the framework of the proven energy management system.

When it comes to electrical energy, SCHOTT will be relying entirely on green electricity in the future. By 2021, the Group wants to cover 100 percent of its electricity needs with renewable energy sources such as hydroelectric power, wind power, solar energy, and biomass with corresponding certificates of origin.

In the long term, the company wants to avoid using fossil fuels by developing new technologies – as far as this is technologically feasible. However, this transformation process takes time and requires enormous development and investment costs. The company sees a promising approach in hydrogen technology. Furthermore, researchers and melting technologists are also investigating the feasibility of other technological approaches.

It will be many years before large-scale CO₂-free solutions are available in specialty glass production. In the meantime, the company intends to compensate for technologically unavoidable CO₂ emissions by investing in climate protection projects. Such a compensation portfolio could include involvement in sustainable reforestation projects, for example.

GUIDING PRINCIPLES, PIONEERING SPIRIT AND RESPONSIBILITY

SCHOTT is heralding a new era in its environmental and climate management with its 'Zero Carbon' strategy project. "Pioneering spirit, long-term thinking and responsible action have been deeply rooted in the company's DNA since the days of its founding. We also want to be guided by these principles in our fight against climate change," says Dr. Frank Heinrich. ●

✉ anja.schlosser@schott.com