

PRESS RELEASE

RECYCLED PLASTIC GOES HI-TECH:

SIRMAX INVESTS IN SMART MOLD, A UNIVERSITY SPIN-OFF COMPANY OFFERING INNOVATIVE TECHNOLOGIES

Designing the plastic of the future and its end of life: The Padua-based multinational increases its capital thanks to a partnership with the University of Padua which aims to offer sustainable solutions to its international clients

President and CEO Massimo Pavin states: "As the economy restarts, healthy companies must contribute to the recovery of the industrial sector with even more energy. We are promoting collaborations with research bodies and optimizing production timeframes and methods that will open up new opportunities for our clients."

Cittadella, May 13th, 2020

Sirmax, the Padua-based industrial group specialized in the production of thermoplastic compounds, has consolidated its existing relationship with the University of Padua by **acquiring 50% of its spin-off company, Smart Mold**.

Smart Mold is the brainchild of three faculty members from the Department of Industrial Engineering, who sought to utilize their extensive experience in the plastics sector **to deliver solutions that decrease plastic consumption and use circular raw materials**.

Smart Mold operates in two business areas. Its first and most innovative activity facilitates the processing of recycled plastics. The company has patented a plastic injection mold surface treatment, which reduces injection pressure to facilitate mold-filling. The Smart Mold patent opens up many application opportunities for post-consumer plastics, which are usually limited due to their higher, more variable levels of viscosity. This translates to a lower impact on the environment and a more environmentally respectful approach.

Its second business activity is to reduce plastic consumption by producing objects using raw materials with a higher added value. Smart Mold supports companies starting from the **engineering design** process: studying product application (for instance, the internal structure of a car's dashboard) and assessing the mechanical characteristics they require (in this case, load and impact resistance). It uses advanced software to simulate the product's mechanical behavior and is then

able to suggest design solutions that reduce the product's weight and its **plastic consumption**. Thanks to its extensive know-how, Sirmax can provide materials that are optimized for their specific application and at the forefront of engineering design. Thanks to the combination of the high-performance materials produced by Sirmax and Smart Mold's injection mold surface treatments, the thickness of many structural components can be significantly reduced, thereby reducing their weight and their virgin plastic consumption.

The Smart Mold team applies its scientific methods and rigorous approach to the design process, while Sirmax can supply the technical expertise and the facilities of its R&D departments for the study and production of the compounds to be used. The common objective is to design and supply component materials with a high added value for use in the automotive, home appliance and the electric and electronics sectors, offering hybrid solutions that **deliver the same performance as their virgin counterparts but utilize a high percentage of recycled materials – something which is in high market demand**.

"The synergy between Sirmax and Smart Mold," states Sirmax President and CEO **Massimo Pavin**, "will enable us to offer both new and existing clients something beyond simple compounds. We will be able to deliver products and services that meet the strictest industry requirements across the whole process, from the design stages right up to the finished product, while also addressing growing environmental concerns. **We will be able to offer stronger, more environmentally-conscious materials and replace high-impact materials with better-performing ones.**"

Giovanni Lucchetta, Smart Mold founder and partner and Professor of Manufacturing Engineering at the University of Padua adds: "The technical knowledge acquired over the years, along with a desire to offer concrete solutions for sustainable plastic use, has led us to formulate a business proposal that contributes to reducing the impact of plastic. **Thanks to our mold surface treatments, we can "elevate" recycled plastic**, while our engineering activity means we can significantly reduce the thickness and weight of many structural components, decreasing both plastic consumption and molding costs."

Sirmax has been collaborating with the Department of Industrial Engineering of the University of Padua for many years, taking part in research projects, financing doctoral scholarships and donating scientific laboratory equipment.

"We firmly believe in growing our relationship with academia and in the talent of its individuals," concludes Massimo Pavin. "This is why welcoming Smart Mold into the Sirmax Group and opening its door to the market is the best way for us to promote local excellence. At a time when shifting economic paradigms are raising many questions, healthy companies must contribute to the recovery of the industrial sector with even more energy. **In this recovery phase, we are promoting collaborations with research bodies and optimizing production timeframes and methods, which will open up new opportunities for our clients.**"

The acquisition of Smart Mold is part of Sirmax's three-year development plan (2019-2021), which will see investments of 80 million Euros and has a particular focus on the circular economy. This focus has already led to the acquisition of SER Srl (based in Salsomaggiore Terme, Italy), an Italian company active in the production and processing of **post-consumer plastics**, and of Microtec (Mallaredo di Pianiga, Italy), a **bioplastics** company specializing in the manufacturing of packaging film and single-use tableware. Also in 2019, Sirmax inaugurated its second Polish plant in Kutno (Lodz), dedicated to the production of a new range of **sustainable, 100% recyclable** products (Xelter[®] thermoplastic elastomers), while construction of the second SER plant, which will open the end of 2020 and focus on the production of post-consumer plastics, has also begun in Anderson, USA.

Smart Mold

Smart Mold was born in 2018 thanks to an initiative by Giovanni Lucchetta and Marco Sorgato, professors at the Department of Mechanical Engineering at the University of Padua, and Davide Masato, professor at the Department of Plastics Engineering, University of Massachusetts Lowell. Its operating headquarters are located at the t2i certified incubator, adjacent to the Te.Si Laboratory, a branch of the University of Padua located in nearby Rovigo. Smart Mold closed its first fiscal year (2019) with a revenue of 50 thousand Euros and expects it to double in 2020. Among its clients are UNOX, Prima Sole Components and DAB Pumps.

The Sirmax Group

The Sirmax Group, with headquarters in Cittadella (Padua), is the leading independent European manufacturer (and among the top global manufacturers) of polypropylene compounds used across all sectors: automotive, household appliances, power tools, household, construction and furniture. It is also a leading distributor of plastics. Active since the 1960s, today Sirmax boasts 6 production plants in Italy (Cittadella, Tombolo, Isola Vicentina, San Vito Al Tagliamento, Salsomaggiore Terme and Mellaredo di Pianiga), two in Poland (2006-2019), one in Brazil (2012), one in the USA (2015) and two in India (2017), as well as a sales office in Milan, Italy, and technical sales offices in France, Spain and Germany. Sirmax has acquired significant market shares in Europe, North and South America and Asia, and has become a global benchmark for the international market. Among its clients are industry-leading firms such as Whirlpool, Bosch-Siemens, Electrolux, Karcher, Philips, Honeywell, ABB, Technogym, FCA, Volkswagen Group, Daimler and PSA (Peugeot Citroen Group). In 2019 the Sirmax group consolidated over 300 million Euros' worth of business, employing 700 people around the globe.

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