

SILICONES: GETTING EUROPE TO 2050

The EU Green Deal has set in motion an overhaul of EU policies across sectors, with big, ambitious goals to reach by 2050. The silicones industry is working hard to deliver tangible solutions and get Europe to where it needs to be. Silicone materials are a vital component in many of the products that make sustainability possible. Through coating, protecting, shielding and insulating, the countless applications of silicones have consistently delivered better efficiency, reliable performance and longer lifetime for key technologies.

This is no small feat for a Europe that is looking to combine industrial competitiveness with sustainable green growth. Here are some of the ways in which this remarkable chemistry is at the forefront of the EU's Green Deal ambitions.



CLIMATE

Silicones help the EU reduce CO₂ emissions across many sectors. From improving the energy performance of buildings by providing better insulation and weather-proofing, to enabling clean energy technologies such as solar panels and wind turbines by shielding components from harsh weather conditions, silicones are an essential element to the EU's decarbonisation efforts. They also help improve the energy efficiency of many transport modes such as ships and planes by reducing fuel consumption.



DIGITAL

Silicones have revolutionised the digital and Information and Communications Technology (ICT) sectors by enabling high-performing and reliable devices thanks to their thermal-, moisture- and wear-resistance. Silicone technology lies at the heart of smartphones, computers, LEDs and even batteries. For example, electric vehicles would not function without silicones protecting the batteries from heat, cold, moisture, contaminants, and temperature fluctuations.



CIRCULAR ECONOMY

Performance is not the only quality which silicones bring to the many market sectors in which silicones are integral and critical components. Thanks to their insulating qualities, silicones make products more durable, prolonging their lifetime, reducing repairs and replacement, and minimising waste. Even in construction, silicones prevent building degradation thanks to their extreme durability and resistance to water, UV and chemical damage.



INDUSTRIAL COMPETITIVENESS

Silicone technology lies at the heart of many of the EU's strategic value chains. From batteries to autonomous vehicles to ICT, satellites and even healthcare innovation – many of the EU's key sectors would not look the same without the small but vital characteristics which silicones bring in terms of performance and sustainability. Silicones are unrivaled in many advanced medical technologies, such as artificial hearts and electronic prostheses because, among other benefits, they have a wide range of performance characteristics making them suitable in a multitude of medical applications; they can withstand sterilisation, and are hypoallergenic and biocompatible.

SILICONES ARE VITAL CONTRIBUTORS TO SUSTAINABLE ECONOMIC GROWTH

Silicones make an important contribution to Europe. Not only do they generate € 9 billion of wealth per annum, accounting for some 10,000 jobs, but they also play a vital role in supporting a sustainable European economy by enabling technologies that are central to delivering the EU's Green Deal ambitions and 2050 carbon neutrality target.

