Imerys inaugurates its first synthetic minerals pilot plant

Imerys, the world leader in mineral specialities for industry, today inaugurates a new pilot unit project that enables the molding of very high-performance minerals. The unit is located in its Lyon Technology Center, which specializes, amongst other things, in high-temperature materials and has benefited from an investment of one million euros.

This process, unique in the world, was developed thanks to scientific and technical partnerships with the universities of Bordeaux and Toulouse and has generated twenty patents. This process is able to reproduce in a few seconds the action of nature over a period of several million years. This therefore enables Imerys to create minerals with high technology properties complementary to its existing product offering.

The process, called "hydrothermal synthesis in continuous process", plays on the pressure (150 to 300 bars) and the temperature (100 to 600°) in order to create "customized" minerals, by determining upstream their size, structure, morphology, purity, composition, color, or any other property. These minerals with variable characteristics have higher levels of performance and can be used in high technology and niche applications compared to their naturally-occurring counterparts.

The development of this process complements Imerys' offer with materials with very high added value, which will initially focus on alumina, zircon and silicate (talc, mica). These synthetic minerals will make it possible, for example, to improve the absorption of pollutants into the air and water thanks to a dedicated functionality, or to improve the quality and resistance of glass for computer screens and smartphones. In terms of industrial variants, this pilot also offers the possibility of producing other prototypes and developing high-end applications jointly with certain Imerys customers, therefore allowing access to new and fast-growing markets.

This synthesis process is also of great environmental interest and is part of a sustainable approach: all the atoms used are converted, without loss, and water serves as a solvent and as a substitute for chemicals. Finally, and more broadly, synthetic minerals pave the way for a wide range of possibilities in many products and uses of everyday life, from plastic chemistry to inert, recyclable and environmentally friendly minerals.

On the occasion of the inauguration ceremony, Alessandro Dazza, CEO of Imerys said:

"We are particularly proud to inaugurate this pilot in our Lyon Technology Center as it carries the Group's culture of innovation and French industrial know-how. This unique and ambitious innovation
project is fully in line with our sustainable innovation approach and paves the way, now and in the short term, to the development of a wide range of complementary products therefore diversifying our product offering. This will allow us to position ourselves in new and growing markets, offering materials that can replace those produced by traditional highly carbon-emitting chemical processes.”

About Imerys

The world’s leading supplier of mineral-based specialty solutions for industry with €4.4 billion in revenue and 17,000 employees in 2021. Imerys delivers high value-added, functional solutions to a great number of sectors, from processing industries to consumer goods. The Group draws on its understanding of applications, technological knowledge and expertise in material science to deliver solutions by benefiting its mineral resources, synthetic minerals and formulations. Imerys’ solutions contribute essential properties to customers’ products and their performance, including heat resistance, hardness, conductivity, opacity, durability, purity, lightness, filtration, absorption and water repellency. Imerys is determined to develop responsibly, in particular by fostering the emergence of environmentally-friendly products and processes.

Contact information

Claire GARNIER - Communication Vice President +33 1 49 55 64 27
Hugues SCHMITT - Primatice +33 6 71 99 74 58