



## DSM AND CLARITER PARTNER TO PURSUE CHEMICAL RECYCLING SOLUTION FOR DYNEEMA®-BASED END-PRODUCTS

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Royal DSM, a global science-based company in Nutrition, Health and Sustainable Living, and Clariter, an international clean-tech company, today announce their strategic partnership to pursue a next-generation chemical recycling solution for products based on DSM's Dyneema®, an ultra-high-molecular-weight polyethylene (UHMWPE) fiber. As a first step of this partnership, a range of sample products – including ropes, nets, and ballistic materials made with Dyneema® – were successfully converted at Clariter's pilot plant in Poland, **demonstrating the recyclability potential of Dyneema® and underlining the active commitment of DSM Protective Materials to shape a more sustainable world.**

In line with its ambitious sustainability targets, and following the successful launch of bio-based Dyneema® (mass balance), DSM Protective Materials is actively pursuing reuse and recycling solutions for end-of-life Dyneema®-based products. To drive technical recycling solutions, DSM Protective Materials and Clariter partnered to test the feasibility of using Dyneema® as a feedstock in Clariter's chemical recycling process. Sample products made with Dyneema® were used in Clariter's tests at its pilot plant in Poland. The positive results confirm the technical viability of transforming Dyneema®-based end-products into high-value, industrial grade, product families: oils, waxes, and solvents via Clariter's patented 3-step chemical recycling process. These can be further used as ingredients to manufacture new end- and consumer products.

Moving forward, DSM Protective Materials and Clariter will continue to drive this initiative to shape a more sustainable world. Specifically, building on the success of the lab-scale trial, Clariter has scheduled commercial-scale trials at its facility in South Africa for 2021, with the aim to use Dyneema®-derived feedstock in its full-scale European plants that will be built in the coming years. In addition, DSM will continue to actively explore the possibilities of reducing the environmental impact of Dyneema® across all product life stages.

**Petra Koselka, Clariter Chief Operations Officer, said:** "To stretch and explore boundaries of the next circular solution requires courage, foresight, and tenacity, which DSM has demonstrated with abundance. Looking at the logistics challenge to collect many tons of used marine ropes, nets, and ballistic materials is daunting. However, when an economical route presents itself, suddenly the next horizon seems within reach. We are pleased to work with DSM to perform R&D on what we have dubbed 'exciting exotics', and plan to use it as part of our raw materials in the full-scale plants we will build in Europe."

**Roeland Polet, President of DSM Protective Materials, said:** "Following our successful efforts to introduce bio-based Dyneema® (mass balance), these results mark the next important step on the circularity journey of DSM Protective Materials. Recyclability is key to us, our customers, and society at large and achieving this requires cross-value chain efforts. To this end, we're looking forward to continue building our partnership with Clariter, and to continue using our science-based capabilities to deliver on our purpose of creating brighter lives for all."

Clariter works with REYL & Cie as financial advisor.

### About Clariter

Clariter has created a revolutionary chemical recycling (upcycling) process that provides a large-scale solution for the world's plastic waste problem. The technology accepts the majority of plastic waste streams, and not only helps to clean the planet effectively but also creates a strongly profitable business opportunity. Rather

than recycling plastic waste into intermediates which require further processing, Clariter transforms it into 3 industrial, ready-to-use product families: oils, waxes, and solvents. These pure fossil-fuel alternatives are used as ingredients to make over 1000 clean, everyday end- and consumer products. The footprint of Clariter's process is net carbon negative and preferable to landfill, incineration and other pyrolysis-based solutions. Their technology is proven through an operational Pilot Plant in Gliwice, Poland, and a Demonstration Plant in East London, South Africa. Their offices are based in Israel, Poland, Luxembourg, and The Netherlands. Without compromise on profitability or sustainability – Clariter unlocks the value of the Circular Economy. For more information visit [www.clariter.com](http://www.clariter.com).

## About Royal DSM

Royal DSM is a global, purpose-led, science-based company active in Nutrition, Health and Sustainable Living. DSM's purpose is to create brighter lives for all. DSM addresses with its products and solutions some of the world's biggest challenges while simultaneously creating economic, environmental and societal value for all its stakeholders — customers, employees, shareholders, and society at large. DSM delivers innovative solutions for human nutrition, animal nutrition, personal care and aroma, medical devices, green products and applications, and new mobility and connectivity. DSM and its associated companies deliver annual net sales of about €10 billion with approximately 23,000 employees. The company was founded in 1902 and is listed on Euronext Amsterdam. More information can be found at [www.dsm.com](http://www.dsm.com).

Or find us on:



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