



## CLARITER'S UNIQUE PLASTIC RECYCLING SOLUTION ACHIEVES A NET NEGATIVE CARBON FOOTPRINT

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Clariter, an international clean-tech company, has announced that its unique plastic recycling solution has achieved a net negative carbon footprint according to the results of a new study, meaning it does not add to, but rather depletes carbon from the planet.

The results stem from an independent initial Life Cycle Analysis (LCA) carried out by CE Delft, the renowned research and consultancy firm. The LCA determined that Clariter's carbon footprint is below zero indicating a net environmental benefit, with the solution actually reducing carbon emissions.

The purpose of the study was to better understand Clariter's sustainability offering to its customers and other stakeholders and to further inform them of its engineering design activities.

Unlike the majority of the recycling industry which focuses on recycling plastic waste mechanically, Clariter recycles chemically. As a result, the innovative technology transforms unwanted plastic waste into high-value, ready-to-use pure industrial products, thereby providing a breakthrough solution for the plastic waste epidemic.

Clariter complements mechanical recycling by upcycling plastic waste streams that cannot be processed mechanically. The company's patented 3-step chemical process results in the upcycling of plastic waste into sulphur-free, odourless, and pure chemicals: aliphatic solvents, white mineral oils, and paraffinic snow-white waxes. These are further used as ingredients for more than 1000 end- and consumer products.

Clariter's near-term plan is to build and operate full-scale plants, each of which will recycle 60,000 tons of plastic waste and produce 50,000 tons of clean products annually. The LCA study also highlighted that the Clariter process offers significant benefits for the treatment of plastic waste that cannot be recycled mechanically.

**Geert Bergsma, Manager Supply Chain Analysis, CE-Delft said:** "CE Delft performed a life cycle assessment for Clariter, from cradle-to-gate. The results indicate that their solution looks more attractive than alternative, non-mechanical recycling polyolefin disposal routes and an even stronger CO<sub>2</sub> negative footprint is well within reach. If fully renewable utilities are used, this statement can be made even more so."

When comparing the recycling of plastic waste (polyolefins) by Clariter, with other waste treatment routes for polyolefins, the outcome includes both the impact of the production processes and the environmental benefits of avoiding conventional products or energy. The LCA results prove that:

1. Clariter's carbon footprint is negative (below zero), which indicates a net environmental benefit. Compared to others, Clariter is not polluting or depleting but rather cleaning the planet.
2. The impact and benefits of Clariter's solution supersede those of the pyrolysis<sup>1</sup> process, which produces intermediates, e.g. energy, fuel, or new plastics. Certain pyrolysis processes create plastics, Clariter does not. It ends the life of plastic for good.

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<sup>1</sup> Pyrolysis is a chemical process also known as thermal cracking.



3. Clariter's Full-scale Plants are expected to be better than alternatives, e.g. incineration in Municipal Solid Waste Incineration (MSWI), also including energy recovery. It is also expected that they will be competitive against best-case pyrolysis processes, as Clariter's solution has a lower carbon footprint.

**Petra Koselka, Clariter COO, said:** "Being net carbon negative is a unique and strong position. With further optimization of our plants, and using renewable energy sources and possibly green hydrogen in the future, we expect Clariter's process to have an even more advantageous carbon footprint. Delivering such green products to our customers – offering the industry "a clean slate" - is at the heart of what we do. The outcome is not only an important step for us but the entire chemical recycling sector".

Clariter works with REYL & Cie as financial advisor.

### About CE Delft

Through its independent research and consultancy work, CE Delft is helping build a sustainable world. In the fields of energy, transport and resources, their expertise is leading-edge. With their wealth of know-how on technologies, policies, and economic issues, they support government agencies, NGOs, and industries in pursuit of structural change. For 40 years now, the skills and enthusiasm of CE Delft's staff have been devoted to achieving this mission. For more information visit: [www.cedelft.eu](http://www.cedelft.eu).

### 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).

### Media Contact

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