

World premiere of a completely new type of plastic manufacturing from recycled plastic packaging

In Ängelholm, Omni Polymers now produces high-quality raw material in the form of a homogeneous polyolefin granule made with flexible plastic packaging from Swedish households. This waste material has previously been incinerated, but now, Omni Polymers plastic challenges the use of virgin plastic in new products. CO2 emissions are significantly lower, and the environmental benefits are profound.

A completely new type of manufacturing process.

The manufacturing process is the first of its kind. Together with Plastonomy, Omni Polymers has designed and constructed the production line specifically for end-of-life flexible plastic packaging that has previously been difficult to recycle. Each production step consists of innovative solutions based on proven techniques and has been synergized to process flexible plastic packaging waste. Simplified, the production line consists of the following four process steps: size reduction, washing and drying, density separation, and finally, extrusion. The treatment water is circulated in its closed recycling system for maximum resource efficiency and minimal environmental impact. In collaboration with Erema, Weima and WIPA, Omni Polymers is a state-of-the-art facility with one goal: to process plastic waste into raw material.

The product Omni Polymers PCR PP-PE replaces virgin plastic in new products and is recyclable.

The product is produced from used household packaging. Omni Polymers PP-PE consists primarily of polypropylene (PP) and polyethylene (PE). It is good to mix that combines their properties homogenously. For example, PP has high strength and resistance to chemicals, while PE has high flexibility and formability. Omni Polymers PP-PE replaces new plastic as a raw material in new products.

PCR = Post-Consumer Recycled

Omni Polymers PCR PP-PE has suitable properties for injection molding and extrusion applications.

Omni Polymers granulated PP-PE can be successfully used directly in injection molding and extrusion applications or indirectly as supplemental material for other applications. The most important technical features are, content approx. PE 77% and PP 23%, colour Gray, filter 230-260 or 320-340 micron, MFI approx. 2-5 g/10 min, density 0,985 g/cm³ and E-modul 600 - 650 MPa. Omni Polymers have customers in several manufacturing industries, and their product applications vary.

For more technical specifications please look at the fact sheet for Omni Polymers' PCR PP-PE.

Three new products for consumer packaging manufacturers.

Omni Polymers are working on refining and broadening its offer to manufacturers of consumer packaging and plans to introduce three new Omni Polymers granules in 2023 – 2024.

- **Omni Polymers PCR HDPE**
- **Omni Polymers PCR PP**
- **Omni Polymers PCR PP, film quality**

Omni Polymers PCR HDPE and PCR PP are used as raw materials in injection molding and extrusion processes to manufacture various packaging products or other plastic products. Omni Polymers PCR mono PP is specifically used to produce plastic films. Omni Polymers will produce these products from collected consumer



packaging waste from the Swedish market. If you are interested in our new products and/or becoming involved in developing new consumer packaging of our products, please feel free to get in touch.

50% lower CO2 emissions.

The company's preliminary studies show that plastic manufacturing saves 1.41 tons of carbon dioxide per ton produced compared to manufacturing from virgin raw materials. The product aims to reduce customers' CO2 emissions by at least 50% compared to virgin polymers. Omni Polymers is working on improving these calculations on climate impact.

Significant environmental benefits.

Our use of plastic continues to increase but very little is recycled. According to [the Swedish Environmental Protection Agency](#), 87 % of all plastic waste is incinerated. In Sweden alone, approximately SEK 9 billion in material value is estimated to be lost annually. That is something Omni Polymers seeks to change. Using recycled polymers is not only about the responsible care of recycled materials. It also reduces CO2 emissions and energy use. It helps companies meet sustainability goals and avoid government legislation on extended producer responsibility (EPR). In addition, it contributes to reduced dependence on imported raw materials, shortens supply chains, and lowers overall costs. We all know by now that extracting and processing oil for virgin plastic production has a finite lifespan and ultimately harms our planet. And in today's market, consumers are making more thoughtful, more sustainable choices. Therefore, using existing, previously unwanted material makes perfect sense.

An annual capacity of 20,000 tonnes.

The plant is currently authorized to receive 10,000 tonnes of incoming material annually. 2023, the permit will be extended to 30,000 tonnes. The facility's washing and sorting process can process over 5 tonnes of packaging plastic per hour. The two extrusion lines can produce 2 - 3 tons of granules per hour. With an extended permit, the annual capacity will be 20,000 tonnes.

A homogeneous raw plastic material.

It is essential to ensure material homogeneity in plastic production when manufacturing plastic granules from end-of-life products. The entire Omni Polymers production line is designed to ensure just that. Several material processing techniques and quality procedures have been implemented to ensure homogeneous produced material. The product is continuously tested in an independent laboratory.

A reliable supplier.

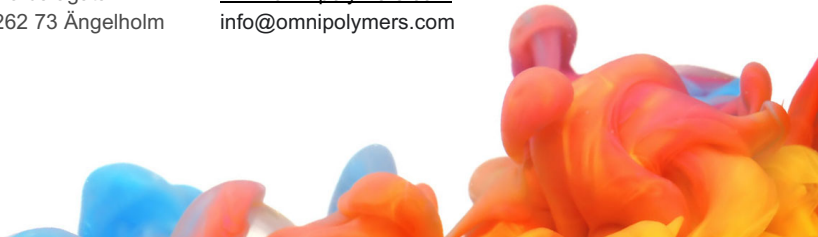
The facility is strategically located in an area with good access to input materials. The company is part of the collection system for consumer packaging, which also provides a guaranteed supply of input materials. As a standard, Omni Polymers delivers its product in large sacks with a minimum delivery quantity of 24 tonnes. The product can be picked up with a standard trailer from Omni Polymers' warehouse in Ängelholm. Of course, different packaging and delivery options can be discussed.

A recycling rate of 80%.

The production line is designed for high-capacity efficient recycling. The goal is a recycling rate of 80% of incoming plastic. Production rejects are mostly food scraps, fibers from packaging labels and heavier rigid plastics that have high density rates. These heavier plastics will be recycled with external partners.

An investment of SEK 80 million.

The investment totals SEK 80 million with contributions from Klimatklivet, the Swedish Environmental Protection Agency's program to reduce CO2 emissions. The investment is also sponsored by Nestlé, the world's largest food company. Omni Polymers is owned by [TMR Gruppen](#) and [Plastonomy](#). TMR handles everything related to producer responsibility for paper, metal, and plastic packaging. Plastonomy is an engineering and consulting company that designs, constructs, operates, and automates plastic recycling facilities. Omni Polymers is independent and not bound to any industry interests.



Many new job opportunities in Ängelholm.

The facility currently employs 24 staff members. When production increases its capacity, the team will increase to 30 employees. The company is affiliated with the industry- and employer organization IKEM and thus has a collective agreement with IF Metall.

Positive environmental impact.

The facility's most significant environmental benefit is producing a product that significantly lowers carbon dioxide emissions and can replace the need for manufacturers to use virgin plastic. Air emissions from the extrusion of granules are negligible. The water used for washing circulates in its closed purification system. Material not recycled is sent to local, environmentally certified facilities. With its high share of renewable hydroelectric energy, the Swedish electricity mix is a better option than the European one. Therefore, it is environmentally sound to carry out this type of manufacturing in Sweden. Omni Polymers aims to only buy green electricity, which will further reduce the company's environmental footprint.

ISO certifications for environment, quality, and work environment.

Omni Polymers takes quality management seriously and endeavors to become certified by ISO standards 9001 (quality), 14 001 (environment), and 45 001 (work environment and safety). This increases security for all stakeholders, including employees, suppliers, and customers.

Stop burning valuable raw materials and slash carbon dioxide emissions.

We use more and more plastic, but very little is recycled. Omni Polymers wants to change that. The sights are set on a society where plastic packaging is not wasted or incinerated but recycled and used to manufacture new products. The long-term vision is an entirely circular plastic flow. The company will soon expand production in Ängelholm and utilize the plant's full potential as demand for recycling processes and recycled material grows. In addition to this, there is also keen interest not only in Sweden but also in Norway and Germany, specifically for this type of manufacturing.

If you have any questions, you are welcome to contact Omni Polymers.

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Welcome to Sweden's new plastics company.

Let's make plastic products more environmentally friendly and the world a better place.

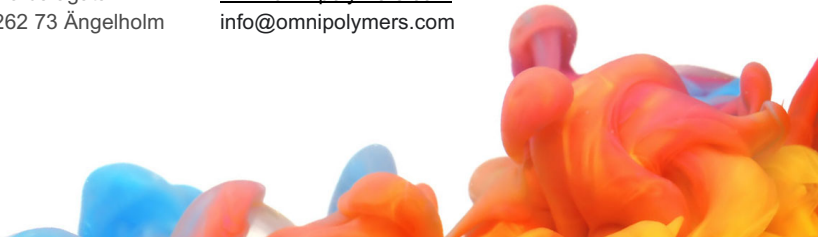
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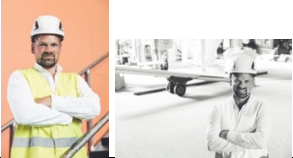
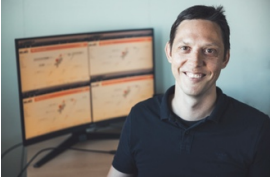







Company website

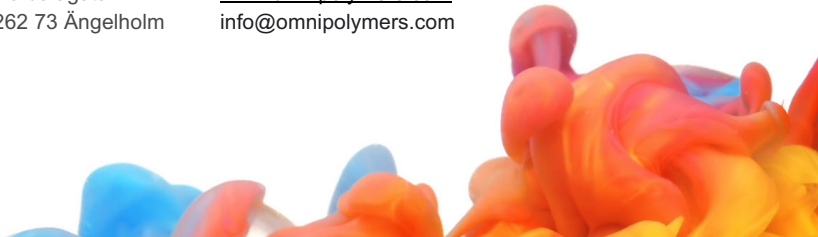
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Press photos with captions and approved quotes

The images are attached, both high and low resolution. Photographer: Marie Hidvi



 	<p>CEO Josef Tapper " Welcome to Sweden's new plastics company." " We produce high-quality raw material in the form of a homogeneous polyolefin granule made with flexible plastic packaging from Swedish households." "The investment of a total of SEK 80 million has been financed by private independent parties with contributions from Klimatklivet. The investment is also sponsored by Nestlé." "Demand for recycling processes and recycled material is high. There is also great interest, not only in Sweden but also in Norway and Germany for this type of manufacturing."</p>
	<p>Sales and Product Manager Janis Abols "Our product Omni Polymers PCR PP-PE is recyclable and replaces virgin plastic in new products." "Omni Polymers granulated PP-PE can be successfully used directly in injection molding and extrusion applications or indirectly as supplemental material for other applications." "Many companies have tested our product and are impressed by the quality."</p>
	<p>Production Manager Magnus Sandström "Our manufacturing process is the first of its kind." "Each production step consists of innovative solutions based on proven techniques. It is the first time they have been put together for this type of production using flexible plastic packaging as raw material". "It is important to ensure material homogeneity in plastic production when manufacturing plastic granules from "End-of-Life" products. The entire Omni Polymers production line is designed to ensure just that."</p>
     	<p>Omni Polymers' Production Facility in Ängelholm In Ängelholm, Omni Polymers now produces high-quality homogeneous polyolefin granules with flexible plastic packaging from Swedish households as raw material. The facility is strategically located in an area with good access to input materials. The company is part of the national collection system for consumer packaging, which also provides a guaranteed supply of input materials. The manufacturing process is the first and only of its kind. It is the first time they have synergized for this type of production using flexible plastic packaging as feed material.</p>



	<p>Omni Polymers polyolefin granules</p> <p>Omni Polymers' polyolefin granules replace virgin plastic in new products. CO2 emissions are significantly lower, and the environmental benefits are profound.</p> <p>The company's own preliminary studies show that plastic manufacturing saves 1.41 tons of CO2 per ton produced compared to manufacturing from virgin raw materials. The goal is for the product to reduce customers' CO2 emissions by at least 50% compared to virgin polymers.</p>
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