Polyolefins

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Circular economy

We join Enerkem and Agbar to build a waste recovery plant in Tarragona

We join the Ecoplanta project together with Enerkem, a technology leader based in Montreal, and Agbar, a global specialist in water and waste management, to build a plant for converting waste into new chemical products in Tarragona.

Within the Ecoplanta Molecular Recycling Solutions joint venture framework, the new factory will process 400,000 tons of non-recyclable urban solid waste from nearby municipalities. It will produce around 220,000 tons of methanol annually. This methanol will be used as a raw material to produce circular materials or advanced biofuels, helping to avoid the emission of some 200,000 tons of CO2 each year and reducing waste that would otherwise end up in landfills. This alliance is a further step in our ambitious goal to reach net-zero emissions by 2050.

The plant will be the first of its kind to be built in the Iberian Peninsula and managed by Repsol and Agbar, while Enerkem will be the key technology partner. The final investment decision for the project is expected in the first quarter of 2022, and the plant is scheduled to come into operation at the end of 2025. The project has already obtained the Integrated Environmental Authorization and the favorable Environmental Impact Statement from the authorities.

New circular packaging solutions for organic dairy products

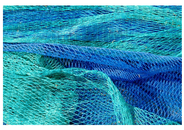
We have reached an agreement with Jokey Group, an international leader in rigid plastic containers, and Cantero de Letur, a Spanish organic dairy company, to manufacture containers with circular polyolefins.

The Cantero de Letur Group will pioneer the use of recycled plastic packaging for its cheeses, and in the organic dairy industry in Spain. This sustainable packaging that Jokey will manufacture will use our Repsol Reciclex® circular polypropylene with ISCC Plus certification.

To manufacture these circular resins, we use technologies that make it possible to take advantage of plastic waste unsuitable for mechanical recycling, which would otherwise end up in the landfill. These wastes are used as new raw materials for our processes and allow us to produce new circular materials with the same quality and functionality as virgin resins. These resins are suitable even for the food industry with their high quality and hygiene requirements.

All of our petrochemical complexes are certified under the ISCC Plus accreditation since the beginning of 2020. Jokey also received this certification in August 2020 at four production plants, including the one in Spain. This certification is synonymous with the use and traceability of recycled materials.

With this alliance, the three companies show their commitment to the environment and the circular economy, reducing the production and consumption of virgin materials and responding to consumer demand for more environmentally friendly packaging, leading the transition in a sector with high safety and hygiene requirements.



New Repsol Reciclex® grades

Soon we will add three new grades to our Repsol Reciclex® range with recycled content from the recovery of post-consumer high-density polyethylene (HDPE) fishing nets.

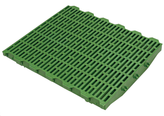
These new grades, already available for testing, will allow us to offer sustainable materials with recycled content, which, thanks to the processes and technology used, maintain the properties of the virgin raw material, making them ideal for applications such as furniture, technical pieces, boxes and trolleys, containers and kitchenware, etc.

Both with 60% recycled plastic content, the Repsol Reciclex® RXN61AG and RXN61BG grades have melt flow indices of 0.15 and 0.3, respectively, and the Repsol Reciclex® RXN41AG grade, with 40% recycled plastic content, has high resistance to stress cracking and good mechanical properties.

Latest developments

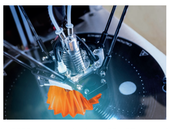
We bolster our Repsol Impacto® range

The new Repsol Impacto® HI0850KM, a high impact development for injection.



Repsol Impacto® HI0850KM grade, with a fluidity of 8 g / 10min (230ºC / 2.16 Kg), provides the main characteristic of its excellent resistance to impact even at low temperatures, without the use of impact modifiers.

This new grade has been designed for the technical parts and automotive segments, belonging to our range of heterophasic polypropylene copolymers for injection molding, where impact resistance even at low temperatures and low volatiles are key requirements. This new product has received an excellent reception, expanding our Repsol Impacto® range and offering tailored alternatives for a wide variety of technical solutions.



We expand our range of advanced materials for 3D printing

We have launched two new products for 3D printing specially designed for applications with high mechanical performance. These advanced materials are based on Repsol's special polypropylene grades and have been reinforced with mineral fillers and fiberglass, respectively, improving their mechanical properties.

In 2020 we launched our PP · 3D range for 3D printing with three grades of polypropylene, specially designed for additive manufacturing thanks to some of the polymers' characteristics modification. With these two new materials, we are committed to the technicalization and specialization of our products, which allow us to respond to the highest requirements in sectors such as automotive, aerospace, toys, leisure, and health, among others. Our entire range can be used in the manufacture of filaments for the FFF technology (fused filament fabrication), also known as FDM (fused deposition modeling), or directly in pellet format for equipment that uses the FGF technology (fused granulated fabrication).

Our 3D printing materials are apt to manufacture prototypes and functional parts in both small and large formats. In this way, we promote the use of 3D printing technologies that represent an advance in the concept of circularity since they allow to optimize the consumption of material from the design stage and minimize the waste of materials in the printing stage. Furthermore, like the rest of Repsol's polyolefins, these products are 100% recyclable.

We partake in the COREBACK-CFMTECH project for the development of lightweight materials with recycled material content

We obtain this seal in a joint project with Renault Turkey and other automotive sector partners to develop lightweight materials with recycled material content.

We participate in this project in a consortium of companies together with Renault Turkey, Karel Kalip (Designer and manufacturer of molds), Farplast (Turkish Tier 1 of the automotive sector), and Nanographene (start-up dedicated to obtaining graphene from recycling tires) that has obtained the Eureka seal for the joint COREBACK-CFMTECH project, which aims to develop compounds with polypropylene and graphene from recycling for use in foamed automotive parts, thus combining weight reduction and the use of recycled materials, contributing to the sustainability of the sector and the reduction of the carbon footprint.

Events

We take part in ADDITIV Mobility

El encuentro virtual de la industria 3D en el sector del transporte.

On April 27 and 28, we were present with a stand in the online meeting dedicated to additive manufacturing in the transport sector. A few days of networking with professionals dedicated to the different mobility industries: rail, automotive, naval and aeronautical.

We promote food safety in plastic packaging

We celebrated the "II Conference on Food Safety in plastic packaging" virtually. The entire value chain of the food industry was present at this conference: prestigious brands in the food sector; commercial distribution companies; container and packaging manufacturing companies; industry associations; technological institutes; environmental organizations and public bodies, among others.

Different perspectives on food safety in plastic packaging were discussed at the event, with the participation of food industry-leading companies in their respective sectors, such as the Armando Álvarez Group and CAPSA FOOD, as well as PlasticsEurope, the pan-European plastic raw materials producers association, and AIMPLAS, the Technological Institute of Plastic.

In 2019 we became the first polyolefins producer to obtain the FSSC 22000 certification in all its industrial complexes, once again showing our leadership in food safety. This certification required implementing a robust and effective food safety management system, which meets all the requirements of regulators, the food sector, and end consumers.

With this new event, we once again show our commitment to food safety and our experience in this sector, which allows us to add value and offer advanced and specific solutions to our customers, the end consumer, and the environment.

Highlights

We achieve the highest certification for our automotive products

We certify our automotive materials production centers under the IATF 16949: 2016, the international standard for quality management systems in the automotive industry.

We have certified our industrial complexes where we produce automotive materials under the IATF 16949: 2016 standard, the most demanding quality management system on an international level for the automotive sector. The IATF meets the international standards of automotive manufacturers and their respective trade associations to combine best practices in designing, developing, manufacturing, and maintaining products for the automotive industry. Thus, it is one of the essential requirements that car manufacturers demand from their suppliers. Repsol has obtained this certification for their polypropylene and its compounds, high-density polyethylene and polyols.

After over 30 years of supplying polyolefins and polyols for the automotive sector, this new certification allows us to take a further step in our commitment to excellence and leadership in this sector in Europe.

Repsol's Polyolefin Laboratory verified for the VW Group's VW 50180 standard

The VW50180 standard establishes the requirements for evaluating the emission behavior of car interior parts before launching them on the market.

Therefore, two of the tests we carry out in our laboratories located at the Repsol Technology Lab comply with the high standards demanded by this renowned automotive manufacturer:

- Determination of condensable substances (Fogging) according to the PV 3015 standard.
- Determination of total volatile organic compounds (TVOC) according to the PV 3341 standard.

This recognition of our Polyolefins Development and Technical Service rigor and excellence, together with our recent certification under the IATF 16949:2016 standard, shows our commitment to innovation and quality in the automotive sector to guarantee customer satisfaction in a highly demanding market.

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All of our polyolefins are recyclable