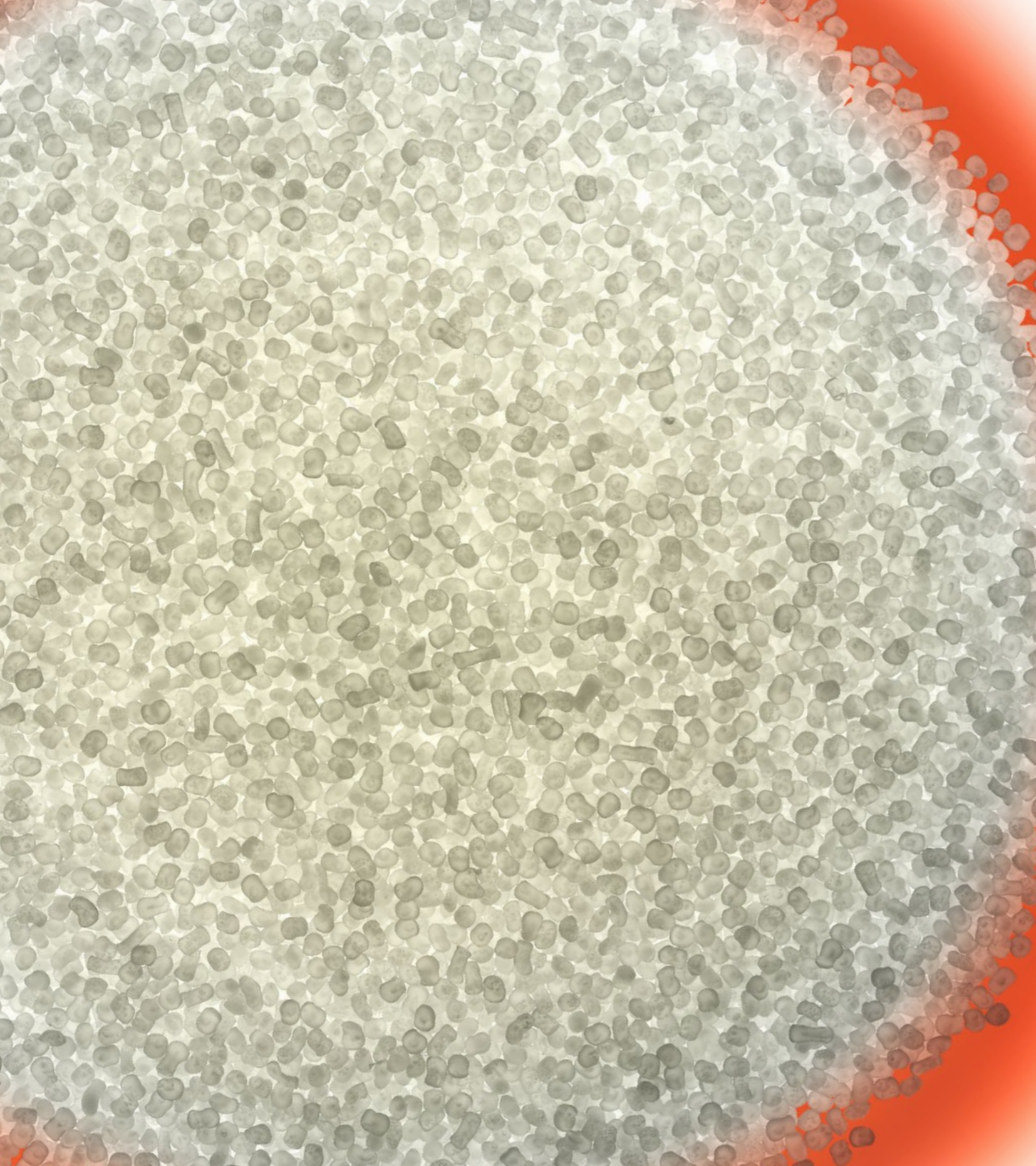




Blow-molding

Polyethylene / Polypropylene



Pioneering sustainable polyolefin solutions

Join us in our **commitment to sustainability and innovation** at Repsol.

Explore our **wide range of recycled polyolefin products**, tailored to meet your needs while reducing environmental impact.

Contact us today to learn more about our high-performance, sustainable solutions and how they can benefit your business.

Together, let's make a difference for the environment and future generations.



Repsol. A global multi-energy company

With over 8 decades of experience

It is leading the energy transition with its ambition of achieving zero net emissions by 2050.

Present throughout the energy value chain, the company employs 24,000 people worldwide and distributes its products in nearly 100 countries. Its customer-focused product and services portfolio meets all consumer needs of around 24 million customers, whether at home or on the move.

Repsol Campus, Corporate Headquarters in Madrid
LEED® Platinum certificate, awarded by the prestigious U.S. Green Building Council (USGBC), for new buildings construction.





Chemicals

Repsol manufactures a wide variety of products, ranging from base petrochemicals to derivatives

Base petrochemicals: ethylene, propylene, butadiene, and benzene.

Intermediate products: styrene, propylene oxide, polyether polyols, and propylene glycols.

Polyolefins: polypropylene (PP) and PP compounds, both high and low density polyethylene (HDPE and LDPE), metallocene linear low density polyethylene (mLLDPE), ethylene vinyl acetate (EVA) and ethylene butyl acrylate (EBA) copolymers.

Over 100 scientists and researchers working for you

Including qualified personnel specialized on Product Stewardship.

Repsol's commitment to R&D is evidence of the company's aim to attain business excellence to meet future horizons.

Added value

Repsol's Chemicals Division, with a high degree of integration, focuses its strategy on the constant generation of value through differentiated products and services.

Working for a more sustainable future

At Repsol, we believe in the circular economy, and we run specific projects that minimize the environmental impact of our materials. To this end, we are committed to making our industrial processes increasingly efficient and reducing the carbon footprint of our polymers.

We have a **specialized circular economy department** dedicated to recycling post-consumer materials to drive development of new materials offering solutions based on innovative polyolefins with recycled content.

We **use recycled plastics in critical applications**, creating new markets for plastic waste and driving circularity by giving that waste a new use. As a result, we offer a wide range of polyolefins with recycled content that deliver excellent engineering performance certified under Recyclclass.

We have circular polyolefins obtained by incorporating pyrolysis oil, from chemically recycled plastic waste not suitable for mechanical recycling, together with virgin feedstock into our petrochemical process, reducing the consumption of nonrenewable resources.

These circular polyolefins have the same properties and quality as virgin material and hold Food Contact Approval.

We have obtained ISCC PLUS certification for circular and traceable polyolefins that use plastic waste as raw material.



**Committed
to Net Zero
Emissions**

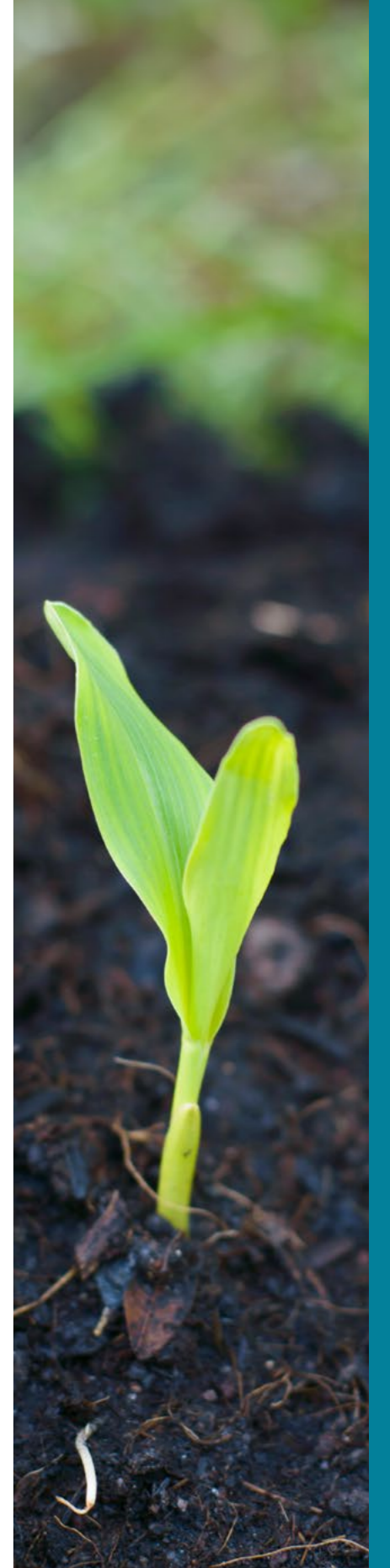
Furthermore, we offer a full Repsol ISCC Plus Certified Polyolefin Bio-based range, including 1st generation Bio derived from sustainably sourced crops, following best practices, the ISCC 202 Sustainability Requirement, and 2nd generation Bio-Based Polyolefins Advanced Bio-Based Feedstock derived from bio and organic waste.

Moreover, our wide range of polyolefins is 100% recyclable.

Our ambition is to produce 10% of our polyolefins as biobased and circular products by 2030, a move that will promote the circular economy. This initiative, in conjunction with other initiatives in Repsol's circular economy strategy, will support the company's goal of achieving net zero emissions by 2050.

To contribute to the company's emissions neutrality goal, **our chemicals business has launched its 3030 Plan, intended to cut our carbon intensity by 30% by 2030.**

Advancing the circular economy and lowering carbon intensity in our chemicals business will contribute towards transforming Repsol's industrial operations, as well as **developing high-value added raw materials, making it possible to manufacture an infinite number of products that improve human well-being, safety, and quality of life**, while enhancing the environment.



Blow-molding

Over 45 years of market experience

We have been developing our integrated chemical business for over 45 years and this experience allows us to control all of the **key factors in the value chain**: research, development, manufacture, marketing and distribution.

With three integrated production facilities in the Iberian Peninsula, we have experience in high-cleanliness product launches with strict handling procedures in place and we provide a regular supply of materials to the food packaging industry.

Over 35 years of experience in technical services and development

Our Technology Lab Centre is the hub of our innovation and development. This is where our products come to life and are meticulously perfected in our quest for **innovative solutions to meet our customers' needs**. Our mission is to develop cutting-edge products and offer **high-quality solutions** to improve your business.



Over 30 blow-molding grades

Thanks to our versatility, we are able to produce one of the widest ranges of polyolefins on the market for industrial sectors such as:



Types of packaging materials used



If foodstuffs were packaged with other materials, energy consumption would double and greenhouse gas emissions would almost triple. And all of this would also suppose a 360% increase in packaging weight!



Dairy and food products

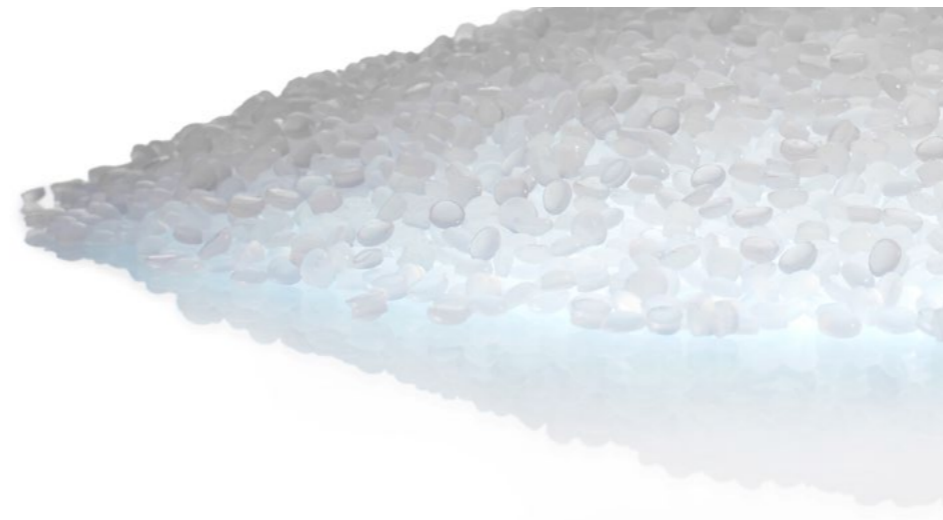
Thanks to their greater density, our grades offer high rigidity from thinner material. Safety is our priority, and this has positioned us in the most demanding markets in terms of food safety.

HDPE

Grade	Density	MFI		Tensile strength at break	ESCR	Flexural modulus	Container capacity	Main application
	kg/m ³	ISO 1133 (g/10 min) 190 °C / 2.16 Kg	ISO 1133 (g/10 min) 190 °C / 21.6 Kg	ISO 527-2 MPa	ASTM 1693 ⁽¹⁾ h (F50)	ISO 178 MPa	Litres	
6006L	961	0.6	40	18	< 10	1450	< 5	Packaging for dairy products and other foods.
6206LS	961	0.6	40	18	50	1450	< 5	Packaging for dairy products and other foods.
6020LS	960	1.8	180	21	40	1300	< 5	Packaging for dairy products and other foods.
5703L	959	0.3	30	30	15	1450	< 5	Packaging for dairy products and other foods.



[1] 10% Igepal. 50 °C



We are food safety leaders. All of our facilities are FSSC 22000 certified in recognition of our food safety risk management processes throughout the supply chain

Dairy and food products



PP

Grade	MFI	Flexural modulus	Tensile strength at yield	Charpy impact 23 °C strength notched	Container capacity	Main application	Other applications
	ISO 1133 (g/10 min) 230 °C / 2.16 Kg	ISO 178 MPa	ISO 527-2 MPa	ISO 179 kJ/m ²	Litres		
PR230C1E	1.5	850	27	45	< 10	Transparent containers.	Sheet extrusion.
PP020G3E	1	1600	34	-	< 10	Thin walled containers.	
PP030G1E	1.7	1600	35	-	< 10	Thin walled containers.	Sheet extrusion.



We have a Product Stewardship department which ensures strict compliance with all of the legislation governing contact with foodstuffs



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Household goods and cosmetics



HDPE

Grade	Density	MFI		Tensile strength at break	ESCR	Flexural modulus	Container capacity	Main application
	kg/m ³	ISO 1133 (g/10 min) 190 °C / 2.16 Kg	ISO 1133 (g/10 min) 190 °C / 21.6 Kg	ISO 527-2 MPa	ASTM 1693 ⁽¹⁾ h (F50)	ISO 178 MPa	Litres	
5203	950	0.23	20	27	45	1100	< 10	Packaging for household products, cosmetics and chemicals.
5503	955	0.23	23	28	100	1200	< 20	Packaging for household products, cosmetics and chemicals.
5803 ⁽²⁾	958	0.25	25	30	200	1400	< 20	Packaging for aggressive households chemical products. High rigidity.
5903S ⁽²⁾	958	0.25	26	30	115	1400	< 20	Packaging for aggressive households chemical products. Medium DPM. High rigidity.



(1) 10% Igepal. 50°C (2) Bimodal

PEBD

Grade	Density	MFI	Production process	Container capacity	Main application
	kg/m ³	ISO 1133 (g/10 min) 190 °C / 2.16 Kg		Litres	
PE003	920	2.4	Autoclave	< 2	Soft containers for detergents and cosmetics.
2308F	921	0.75	Tubular	< 2	Soft containers for detergents and cosmetics.
2303F	921	0.3	Autoclave	< 2	Soft containers for detergents and cosmetics.



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Household goods and cosmetics



PP

Grade	MFI	Flexural modulus	Tensile strength at break	Charpy impact 23 °C strength notched	Container capacity	Main application	Other applications
	ISO 1133 (g/10 min) 230 °C / 2.16 Kg	ISO 178 MPa	ISO 527-2 MPa	ISO 179 kJ/m ²	Litres		
PR230C1E	1.5	850	27	45	< 10	Transparent containers.	
PP020G3E	1	1600	34	-	< 10	Thin walled containers.	
PP030G1E	1.7	1600	35	-	< 10	Thin walled containers.	Sheet extrusion.
PB110H2E	0.3	1300	45	45	< 10	Containers < 10 l.	High shine sheet extrusion, pipes.
PB130G1F	1.4	1200	27	35	< 10	Containers < 10 l.	Excellent gloss.



Safety is a priority. We are ISO 45001 certified in recognition of our strict safety management

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Industrial packaging



We are leading suppliers to the chemical, lubricant, fuel and food industries.

HDPE

Grade	Density	MFI		Tensile strength at break	ESCR	Flexural modulus	Container capacity	Main application
	kg/m ³	ISO 1133 (g/10 min) 190 °C / 2.16 Kg	ISO 1133 (g/10 min) 190 °C / 21.6 Kg	ISO 527-2 MPa	ASTM 1693 ^[1] h (F50)	ISO 178 MPa	Litres	
5803 ^[2]	958	0.25	24	30	200	1400	< 20	Packaging for detergents and aggressive chemical products. High rigidity.
45060UV ^[3]	945	< 0.1	6	35	> 600	1000	700 - 4000	IBC's and domestic fuel containers.
49070UV ^[3]	949	< 0.1	9	30	> 400	1000	700 - 4000	IBC's and domestic fuel containers.
49070	949	< 0.1	9	30	> 400	1000	700 - 4000	IBC's and domestic fuel containers.
49090UVS ^{[2][3]}	949	< 0.1	9	35	> 1000	1000	700 - 4000	IBC's and domestic fuel containers. High rigidity.
49090S ^[2]	949	< 0.1	9	35	> 1000	1000	700 - 4000	IBC's and domestic fuel containers. High rigidity.
55050	955	< 0.1	5.5	38	> 200	1350	< 200	Jerrycan and open top drums for chemical.

[1] 10% Igepal 50 °C [2] Bimodal [3] Protección UV



Our high molecular weight grades for packaging for the transport of hazardous and aggressive materials are lighter, while their rigidity and high resistance to cracking mean they use less material



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Automotive



HDPE

Grade	Density	MFI		Tensile strength at break	ESCR	Flexural modulus	Container capacity	Main application
	kg/m ³	ISO 1133 (g/10 min) 190 °C / 2.16 Kg	ISO 1133 (g/10 min) 190 °C / 21.6 Kg	ISO 527-2 MPa	ASTM 1693 ⁽¹⁾ h (F50)	ISO 178 MPa	Litres	
5203	950	0.23	20	27	45	1100	< 10	
5503	955	0.23	23	28	100	1200	< 20	Blow molding automotive aggressive products.

[1] 10% Igepal 50 °C

All of the activities of the Chemical Division at Repsol are ISO 9001 quality certified. Our industrial facilities meet the ISO 14001, ISO 50001 and OHSAS 18001 (Occupational Health and Safety Assessment Series) standards



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HDPE

Grade	Recycled material * [PCR]	Similar reference	Color	MFI ISO 1133 (g/10 min) 190 °C / 2.16 Kg	Density kg/m ³	Tensile strength at break ISO 527-2 MPa	ESCR ASTM 1693 ⁽¹⁾ h (F50)	Flexural modulus ISO 178 MPa	Main application
30RX5203	30	5203	Natural, grey and white	0.25	955	25	45	1100	Packaging for household products and chemicals. Thin walled.
50RX5203	50	5203	Natural, grey and white	0.25	955	20	45	1100	Packaging for household products and chemicals.
50RX5503	50	5503	Natural, grey and white	0.25	955	20	100	1100	Packaging for household products and chemicals. High ESCR.
70RX5203	70	5203	Natural, grey and white	0.25	952	20	45	1100	Packaging for household products and chemicals.
100RX5203G	100	5203	Grey and white	0.3	955	17	40	1150	Packaging for household products and chemicals.

[1] 10% Igepal 50 °C * MFI 190° C / 21.6 kg



Our commitment to the environment has driven us to new developments. The new Repsol Reciclex[®] range offers compounds that allow the use of up to 100% recycled material for blow molding

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PP

Grade	MFI	Charpy impact strength notched	Melting point	Flexural modulus	Compliance		Applications
	ISO 1133 (g/10 min) 230 °C / 2.16 Kg	ISO 179 kg/m ³	°C	ISO 178 MPa	EurPh	USP	Biocompatibility
HPR02W	1.8	>9	143	800	3.1.3 / 3.1.6	661,1	USP 87 USP Cytotoxicity (Elution Test) USP 88 class VI ISO 10993-4, -5, -6, -10, -11 Large volume parenteral BFS bottles apt for autoclave sterilization at 121°C. Medical packaging, film and pouches.

* Repsol Healthcare grades are DMF (Drug Master Files) listed. For more detailed information on DMF listing, European Pharmacopoeia (Ph Eur.) and United States Pharmacopoeia (USP), please contact Repsol's Technical Service & Development Department atd_poliolefinas@repsol.com



HDPE

Grade	MFI			Density	Melting point	Additives	Compliance			Applications
	ISO 1133 (g/10 min) 230 °C / 2.16 Kg	ISO 1133 (g/10 min) 190 °C / 5 Kg	ISO 1133 (g/10 min) 190 °C / 21.6 Kg				ISO 1183 kg/m ³	°C	EurPh	
HHD55G	0.25	-	23	955	135	Antioxidantes	3.1.3 / 3.1.5	661,1	USP 87 USP Cytotoxicity (Elution Test) USP 88 class VI ISO 10993-4, -5, -6, -10, -11	Packaging, diagnostic and tubes, blow molding bottles.
HHD58G	0.25	-	24	958	135	Antioxidantes	3.1.3 / 3.1.5	661,1	USP 87 USP Cytotoxicity (Elution Test) USP 88 class VI ISO 10993-4, -5, -6, -10, -11	Blow molding HDPE grade presenting stiffness and excellent stress cracking resistance. Grade used for pill jars and containers for pharmaceutical packaging.
HHD48D	0.55	-	-	948	133	Antioxidantes, slip	3.1.3 / 3.1.5	661,1	USP 87 USP Cytotoxicity (Elution Test) USP 88 class VI ISO 10993-4, -5, -6, -10, -11	Injection blown molding grade for pill jars, pharmaceutical packaging and medical devices
HHD55G1	-	0.25	5.5	955	136	Antioxidantes	3.1.3 / 3.1.5	661,1	USP 87 USP Cytotoxicity (Elution Test) USP 88 class VI ISO 10993-4, -5, -6, -10, -11	Extrusion blow molding HDPE grade for pharmaceutical packaging including BFS processes. Good process stability.

* Repsol Healthcare grades are DMF (Drug Master Files) listed. For more detailed information on DMF listing, European Pharmacopoeia (Ph Eur.) and United States Pharmacopoeia (USP), please contact Repsol's Technical Service & Development Department atd_poliolefinas@repsol.com



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Safety and quality are our priority

Excellence is intrinsic to Repsol's values. It infuses our daily work and helps guide our decisions and actions, contributing to achieve the commitment made to our customers, stakeholders, employees, suppliers / partners, and society to build a better future.

Petrochemical complexes and logistics centers all have ISO 45001. **We are food safety leaders.** All our facilities are FSSC 22000 certified in recognition of our food safety risk management processes throughout the supply chain.

Technical Data Sheets and MSDS are available on: www.repsol.com

All petrochemical plants are compliant with the current ISO 9001 standards, for the quality of processes from manufacture to distribution, transport management and end product warehousing.

In February 2019 we obtained the ISCC PLUS certification in all our polyolefin production centers. **We are one of the leading companies in the production of circular polyolefins that use recycled plastic waste as raw material,** and this certification is an example of our commitment to promote the Circular Economy of our materials.

Certifications

Petrochemical plants, plants and logistics ISO 45001	All industrial complex FSSC 22000 All petrochemical plants ISO 9001 ISCC Plus	Puertollano, Tarragona and Monzón plants IATF 16949	Puertollano and Monzón plants Recyclclass	Puertollano, Tarragona and Sines ISO 50001 ISO 14001 ISO 14064
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Environment

Repsol's purpose is to become a net-zero emissions company by 2050, and our 2021-2025 Strategic Plan enables us to continue successfully advancing our multi-energy commitment.

We have set up and deployed an ambitious CO₂ program reduction that pursues a 40% reduction in SCOPE 1 & 2 emissions by 2030 (2017 as reference year) and zero emissions before 2050. Energy efficiency programs to reduce energy consumption and GHG emissions are one of the key elements of our strategy in the short term, followed by deep process electrification and CCUS. Biofeedstocks and renewable electricity will have a relevant role in this transition.

These programs pursue long-term targets made public to facilitate their progress by the stakeholders. In this sense, Repsol Química is committed to a reduction of 0.26 million tons per year of GHG emissions in the 2021-2025 Strategic Plan and a 1.3 million tons per year reduction until 2030 with a roadmap to be a net-zero company before 2050.

Regarding SCOPE 3 emissions, Repsol Química will contribute to the CO₂ emissions reduction at the plastics' end of life with our circularity projects, while we offer sustainable solutions for our clients 100% recyclable polyolefins.

All petrochemical complexes have ISO 14001 certification for their environmental management and the reduction of the impact of their facilities, and ISO 14064 for the annual verification of greenhouse gas (GHG) emissions. In addition, the chemical area of our complexes in Tarragona (2015), Puertollano (2013), and Sines (2016) has implemented an Energy Management System according to the requirements indicated in the International Standard ISO 50001. This system is dedicated to developing and implementing our organization's energy policy and managing the energy aspects of our activities, products, or services. The objective is to increase and improve our energy efficiency based on systems implementation aimed at continuous energy performance improvement, thus contributing to more efficient and sustainable energy use.

Repsol Química has released on a yearly frequency the carbon footprint of all its product families since 2020, considering the "cradle to gate" scope based on ISO 14067.

Efficiency

Respect

Foresight

Value-oriented



Chemicals Customer Care

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