



what we add

GRADES VALUE TRUST

Repsol Alcudia

/ PE grades for high performance shrink film with excellent optical properties, increased rigidity and high processability.

/ Easy-tear grade for the hygiene segment.

/ Grades optimized for extrusion coating systems.

Repsol PE Ultraclean®

/ Range of LDPE products with very low gel content.

/ Analysis in continuous compliance with the strictest standards of quality.

Repsol Resistex®

/ mLLDPE grades with high transparency and gloss: sharper view in packaging of products.

/ Low seal initiation temperature: saving energy and time.

/ High tear resistance: higher security and performance of containers.

Repsol Primeva® and Repsol Ebantix®

/ Wide range of EVA /
EBA copolymers for film
and stretch sleeves,
agricultural film and
extrusion coating.

/ Excellent optical and mechanical properties with good adhesion to different substrates [PE, PET, etc.].

/ Combinable in multilayer films, extrusion.

Repsol Isplen

/ Extensive range of PP for cast film, blow molding and BOPP film: rigidity, cold impact resistance, stretchability and low sealing temperature.

/ Specialties: peelable, matte-look, high-quality film grades for coextrusion.

/ Grades suitable for metallisation.



Repsol

decades of experience in the world of energy

One of the largest energy companies worldwide and one of the biggest private oil & gas companies.

Repsol is committed to our customers' global strategy putting our entire organization at their disposal to achieve a common goal: to create long-term relationships which enable us to rise to the common challenges our business presents.



Repsol Campus, Corporate Headquarters in Madrid

LEED® Platinum certificate, awarded by the prestigious US Green Building Council (USGBC), for new buildings construction

Chemicals



Added value

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



Over 1,5 references

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 scientists and researchers working for you

Including qualified personnel specialised on Product Stewardship. Repsol's commitment to R&D is an evidence of the company's aim to attain business excellence to meet future horizons.





During our 43 years, we have developed an integrated chemical business. This way at Repsol we control all key factors of the value chain: research, development, manufacturing and distribution.

Understanding your needs

At Repsol we are committed with the development of new products for our clients. We are in constant search of innovative solutions to meet all your needs. Our goal is to develop cutting-edge products to offer reliable and quality solutions to enhance your business. Due to this vision Repsol displays one of the widest ranges of film in the market.

over grades for film

Our versatility allows us to produce one of the most extensive ranges of copolymers in the market for a wide range of industrial sectors like:









Building & Infraestructure







Repsol Alcudia >

Repsol PE Ultraclean® >

Repsol Resistex® >

Repsol Primeva® >

Repsol Ebantix® >

Repsol Isplen >



To innovate is to add value

Wide range of polyolefin grades for film: LDPE, HDPE, mLLDPE, EVA, EBA and PP.

Multiple applications of film in food packaging, industry and agriculture.

Excellent optical and mechanical qualities.

Solutions tailored to each customer.

Additives designed to meet the specific needs of each application.

Food safety is our priority. We anticipate the most stringent regulations and requirements. Our Tarragona industrial complex is the 1st Centre for polyolefins production with the FSSC 22000

Our customers are free to use our **food safety** assessment service: regulations, legislation, certifications, migration tests, REACH.

Repsol offers you its full capacity for **innovation** for the continual improvement of its products.

Strict compliance with the regulations and requirements of each application.

Blown film. LDPE

New

	Grade	MFI	Density	Process		Additives			Application
		g/10 min 190°C, 2.16kg ISO 1133	kg/m³ ISO 1183		Thermal stabiliser	Antiblock (ppm)	Slip (ppm)	Antistatic	
	2202F	0.25	921	Tubular					Shrink film, protection industrial film
	2303F	0.30	922	Tubular					Shrink film, protection industrial film
	2203F	0.30	922	Autoclave					Shrink film, protection industrial film
	PEO33	0.30	921	Autoclave	•				Shrink film, protection industrial film
	PE034	0.30	922	Autoclave		3000			Shrink film, protection industrial film
	2107F	0.70	921	Autoclave					Packing film, shrink film, medium duty bags
	2107FG	0.70	921	Autoclave		800	500		Packing film, shrink film, medium duty bags
,	2308F	0.75	923	Tubular					Packing film, lamination, food packaging, shrink film, medium duty bags
v / _	2308FGA	0.75	923	Tubular		800	500		Packing film, lamination, food packaging, shrink film, medium duty bags
	PE015	1.0	921	Autoclave					Packing film, shrink film, medium duty bags
	2212FA	1.2	922	Autoclave		850			Packing film, shrink film, medium duty bags
	2212FG	1.2	922	Autoclave		850	450		Packing film, shrink film, medium duty bags
	PE046	2.0	921	Autoclave		1125	550		Packing and packaging, shrink film
	2221F	2.1	922	Autoclave					Packing and packaging, internal layer in coextrusion, shrink film
	2221FG	2.1	922	Autoclave		850	500		Packing and packaging, external layer in coextrusion, shrink film, bubble film
	2321FS	2.1	923	Autoclave		1200	500		High brightness film, coextrusion, antiestatic film
	PE003	2.3	920	Autoclave					Packing and packaging, hot melt adhesive, shrink film, bubble film
	2335FG	3.5	923	Autoclave	•	900	700		Thin film bags, automatic packaging, textile film
	3235FGA	3.5	932	Autoclave	•	400	650		Thin film bags, high rigidity and easy-tear film, applications hygiéniques
	PE063	4.0	920	Autoclave	•	1200	580		Thin film bags, automatic packaging, textile film

For the hygiene segment, there is an easy-tear grade, with optimized additivation



High gloss film. LDPE

	Grade	MFI	Density	Process	Gloss	Haze		Additives		Application
		g/10 min 190°C, 2.16kg ISO 1133	kg/m³ ISO 1183		60° ISO 2813	% ASTM D-1003	Thermal stabiliser	Antiblock (ppm)	Slip (ppm)	
	2805F	0.55	928	Autoclave	92	6.5				General purpose, shrink film/groups, packaging
	2810F	1.0	928	Autoclave	102	6.3				General purpose, shrink film/groups, packaging, lamination
	2810FG	1.0	928	Autoclave	97	9.0		850	500	General purpose, shrink film/groups, packaging, lamination
New /	2520F	2.0	925	Autoclave	106	6.5	•			Automatic packaging, shrink film, coextrusion film with excellent optical properties, lamination
New /	2520FG	2.0	925	Autoclave	100	7.5	•	850	500	Automatic packaging, shrink film, coextrusion film with excellent optical properties, lamination

Repsol Alcudia. Blown and high gloss film. LDPE 934 932 3235FGA 930 928 Density kg/m³ 926 2520F/FG 924 2308F/FGA 2321FS 2335FG 2221F/FG 2202F 2203F PE046 2107F/FG PE033 PE003 ● PE063 PE041 g/10min 190°C, 2.16kg

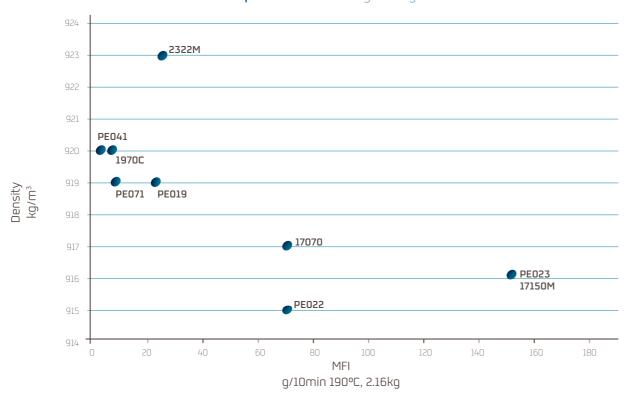




Coating and high MFI. LDPE

Grade	MFI	Density	Process	Application
	g/10 min 190°C, 2.16kg ISO 1133	kg/m³ ISO 1183		
PE041	4.0	920	Autoclave	Extrusion coating, coextruded thin film, cast film
1970C	7.5	920	Autoclave	Extrusion coating
PE071	8.5	919	Autoclave	Extrusion coating
PE019	20	919	Autoclave	Masterbatches, extrusion coating
2322M	22	923	Autoclave	Masterbatches, extrusion coating
PE022	70	915	Autoclave	Masterbatches, hot sealing adhesive, caps and closures, wax blends
17070M	70	917	Autoclave	Masterbatches, hot sealing adhesive, caps and closures, wax blends
17150M	150	916	Autoclave	Masterbatches, hot sealing adhesive, caps and closures, wax blends
PE023	150	916	Autoclave	Masterbatches, hot sealing adhesive, caps and closures, wax blends

Repsol Alcudia. Coating and high MFI. LDPE





We have a wide LDPE portfolio suitable for all kind of compounding processes



Blown film. HDPE

Grade	MFI	Density	Process	Additives	Application
	g/10 min 190°C, 21.6kg ISO 1133	kg/m³ ISO 1183		Thermal stabiliser	
TR156G	9.0	956	Slurry	•	Strong film of very low thickness, carrier bags, industrial liners, paper lamination films
TR135	12	938	Loop	•	Strong film of very low thickness, carrier bags, industrial liners, paper lamination films



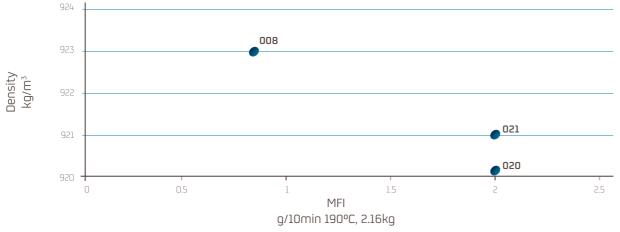


Repsol PE Ultraclean®

Low gel content LDPE

	Grade	MFI	Density	Process		Additives		Application
		g/10 min 190°C, 2.16kg ISO 1133	kg/m³ ISO 1183		Thermal stabiliser	Antiblock (ppm)	Slip (ppm)	
New /	800	0.75	923	Tubular				Protective or high added value film with very low gel content, packaging films requiring low gel content
New /	020	2.0	920	Autoclave				Film with very low gel content, lamination with different substrates with and without adhesives (paper, aluminum, etc.), low thickness shrink-wrap film
New /	021	2.0	921	Autoclave	•	1125		Film with very low gel content, lamination with different substrates with and without adhesives (paper, aluminum, etc.), low thickness shrink-wrap film

Repsol PE Ultraclean®. Low gel content LDPE



Repsol PE Ultraclean® is specially designed for those film applications with the market's strictest quality requirements, which respect the impeccable finish of the surfaces they protect



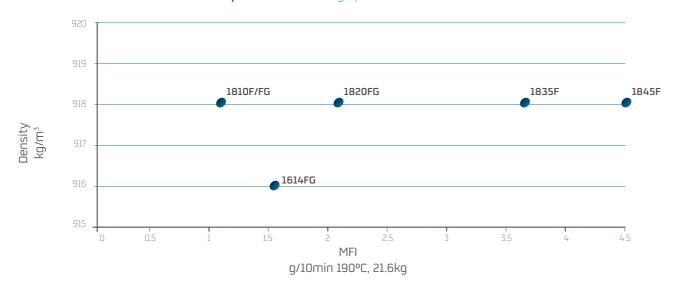


Repsol Resistex®

High performance film mLLDPE

	Grade	MFI	Density	Process	Gloss	Haze		Additives			Application
		g/10 min 190°C, 21.6kg ISO 1133	kg/m³ ISO 1183		60° ISO 2813	% ASTM D-1003	Thermal stabiliser	Antiblock (ppm)	Slip (ppm)	Processing aid	
	1810F	1.0	918	Loop	136	4	•			•	Film with excellent mechanical and optical properties. Sealing layer in coextrusions, packaging for food and industrial applications
	1810FG	1.0	918	Loop	120	5	•	2500	1000	•	Film with excellent mechanical and optical properties. Sealing layer in coextrusions, packaging for food and industrial applications
New /	1614FG	1.4	916	Loop	130	2	•	2500	1000	•	High processability, puncture resistance and excellent low sealing initiation temperature. Sealing in multilayer packaging and lamination
New /	1820FG	2.0	918	Loop	130	3	•	2500	1000	•	High processability, low thickness films with high mechanical performance. Sealing in multilayer packaging and lamination
New	1835F	3.5	918	Loop	140	2	•				Excellent elongation and tenacity capacity, high puncture resistance and gloss. Single and multilayer cast film
New /	1845F	4.5	918	Loop	140	2	•				Excellent elongation and tenacity capacity, high puncture resistance and gloss. Single and multilayer cast film

Repsol Resistex®. High performance film mLLDPE





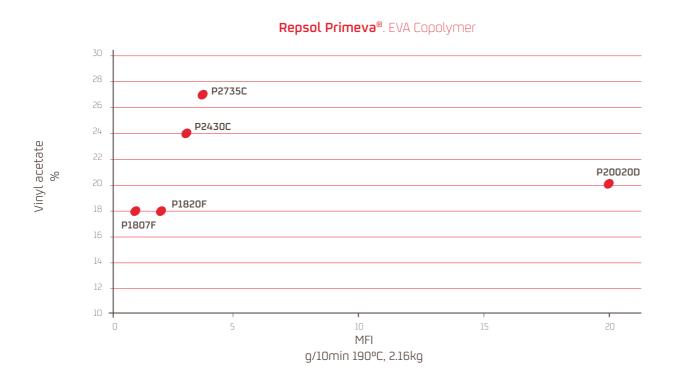
Our linear metallocene catalysed polyethylene film combines excellent processability with outstanding optical properties, transparency and gloss, and mechanical properties such as stretchability, weldability and puncture resistance. All our mLLDPE grades comply with European regulation EU-10-2011 for food contact

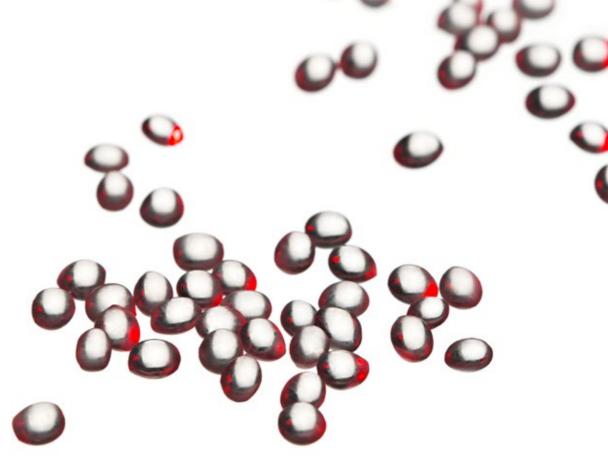




EVA Copolymer

Grade	MFI	Density	Comonomer	Process	Application
	g/10 min 190°C, 2.16kg ISO 1133	kg/m³ ISO 1183	% Vinyl acetate		
P1807F	0.70	941	18	Autoclave	Stretch agricultural and industrial film, stretch hood
P1820F	2.0	937	18	Autoclave	Stretch agricultural and industrial film, stretch hood, coextrusion, thermofusible bags
P2430C	3.0	944	24	Autoclave	Extrusion coating, coextrusion, thermo adhesive film, thermofusible bags
P2735C	3.5	953	27	Autoclave	Extrusion coating, coextrusion, thermo adhesive film, thermofusible bags
P20020D	20	940	20	Autoclave	Extrusion coating, coextrusion





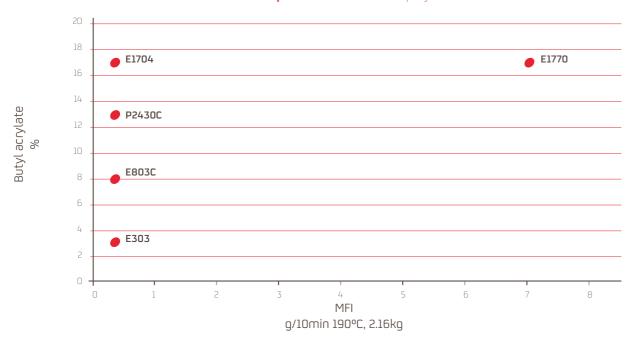




EBA Copolymer

Grade	MFI	Density	Comonomer	Process	Application
	g/10 min 190°C, 2.16kg ISO 1133	kg/m³ ISO 1183	% Butyl acrylate		
E303	0.30	923	3	Autoclave	Stretch hood, agricultural film
E803C	0.30	924	8	Autoclave	Stretch hood, agricultural film
E1303	0.30	925	13	Autoclave	Stretch hood, agricultural film
E1704	0.40	925	17	Autoclave	Stretch agricultural and industrial film, stretch hood
E1715	1.5	926	17	Autoclave	Stretch agricultural and industrial film, stretch hood
E1770	7.0	924	17	Autoclave	Extrusion coating, coextrusion

Repsol Ebantix®. EBA Copolymer





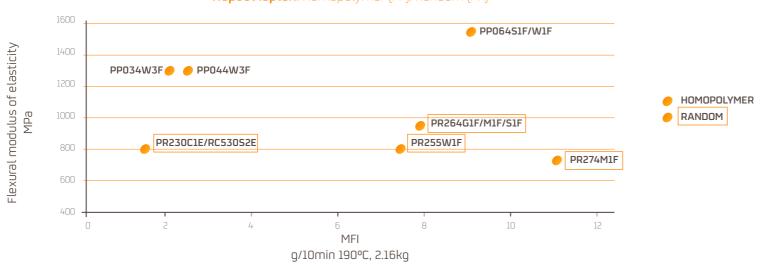


Repsol Isplen

Extrusion. Polypropylene

	Grade	Туре	MFI	Flexural modulus of elasticity	Tensile strength at yield	Charpy Impact strength notched		Additives			Application	
			g/10 min 230°C, 2.16kg ISO 1133	MPa ISO 178	MPa ISO 527	kj/m² 23°C ISO 179	Antiblock (ppm)	Slip (ppm)	Antistatic (ppm)	Without calcium stearate		
	PP034W3F	Homopolymers	2.0	1300	35	5				•	Bioriented or metallised filmes	
	PP044W3F	Homopolymers	3.0	1300	35	5					Bioriented or metallised filmes	
	PP064S1F	Homopolymers	9.0	1500	35	4	1900	1900	500		For cast film. Provides the film with rigidity and good optical properties. Slip and antiblock formulated	
	PP064W1F	Homopolymers	9.0	1500	35	4				•	For cast film. Provides rigidity and good optical properties. Formulation suitable for metallisation	
	PR230C1E	Random	1.5	800	27	22					Clarified grade for blown film with good transparency, gloss and impact resistance	
	RC530S2E	Random	1.5	800	27	22					Clarified grade for blown film with very high transparency, gloss and impact resistance	
New /	PR255W1F	Random	8.0	800	25	7				•	Cast film of very high transparency, gloss and stretchability. Formulation suitable for metallisation	
	PR264G1F	Random	9.0	950	25	6					Cast film of good transparency and good sealing properties. General purposes	
	PR264M1F	Random	9.0	950	25	6	1650	1650			Cast film of good transparency and good sealing properties. Slip and antiblock formulated	
	PR264S1F	Random	9.0	950	25	6	1650	1650	500		Cast film of good transparency and good sealing properties. Slip, antiblock and antistatic formulated	
New	PR274M1F	Random	11	700	25	8	1650	1650			Sealing layer in multilayer films. Low sealing initiation temperature	

Repsol Isplen. Homopolymer (PP). Random (PR)



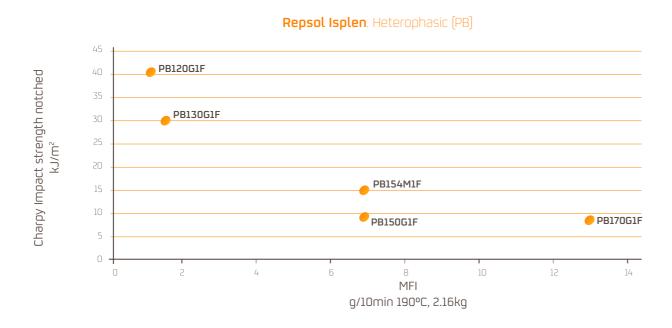




Repsol Isplen

Extrusion. Polypropylene

	Grade	Туре	MFI	Flexural modulus of elasticity	Tensile strength at yield	Charpy Impact strength notched		Additives			Application
			g/10 min 230°C, 2.16kg ISO 1133	MPa ISO 178	MPa ISO 527	kj/m² 23°C ISO 179	Antiblock (ppm)	Slip (ppm)	Antistatic (ppm)	Without calcium stearate	
	PB120G1F	Heterophasic	0.95	1100	21	40					Tapes, high tenacity mono-oriented films, blown film, cast film. Sterilisable. High tenacity
	PB130G1F	Heterophasic	1.3	1100	27	30					Blown film, mono-oriented film and sheet with low temperature requirement. General purposes
	PB150G1F	Heterophasic	7.0	1150	27	9					Cast film with good low-temperature impact properties. General purposes
	PB154M1F	Heterophasic	7.0	1100	27	15	1750	1750			For cast film. High impact at low temperatures, good optical properties. Slip and antiblock formulated
	PB170G1F	Heterophasic	13	1150	27	8					General purposes, cast film with low temperature requirement
New	PX440AF	Specialties	3.0								Matte film for BOPP: excellent film quality, low gloss and high haze
	PX452AF	Specialties	6.5								Matte film: excellent film quality, low gloss and high haze
	PX262CF	Specialties	11				1300	1300			Peelable films on polypropylene. Slip and antiblock formulated
New	PX262DF	Specialties	11								Peelable films on polypropylene









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

Safety is our priority

Petrochemical complexes, packaging facilities and logistics centres all have OHSAS 18001.2007 (Occupational Health and Safety Assessment Series) certification for their rigorous safety measures.

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

Petrochemical complexes, packaging facilities and logistics centres

OHSAS 18001.2007

A global company that seeks the welfare of people and is a step ahead in building a better future through the development of smart energy





Quality

All petrochemical plants are compliant with the current ISO 9001:2015 standards, for the quality of processes from manufacture to distribution, transport management and end product warehousing.

All petrochemical plants

Tarragona industrial complex

ISO 9001:2015

FSSC 22000

Environment

We set up and deploy ambitious energy efficiency programmes to reduce energy consumption and GHG emissions as one of the key elements of our strategy. These programmes pursue long term targets which have been made public in order to facilitate their progress by the stakeholders. In this sense, Repsol Química has attained a final reduction of 0.56 million tonnes at the end of the 2006-2013 period. Repsol is currently working on a new target covering the period 2014-2020, that involves an additional reduction of 0.42 million tonnes of CO₂.

They also, 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.

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, as well as manage 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 performances improvement and thus contribute to a more efficient and sustainable use of energy.

Puertollano, Tarragona and Sines

ISO 50001 / ISO 14001 / ISO 14064

Chemicals Customer Care

SPAIN

Tel.: 900 10 32 39 Tel.: + 34 91 753 18 01

PORTUGAL

Tel.: 800 60 501 111 Tel.: +34 91 753 18 05

FRANCE

Tel.: 800 60 503 333 Tel.: +34 91 753 18 02 **ITALY**

Tel.: 800 60 509 999 Tel.: +34 91 753 18 04

GERMANY

Tel.: 800 60 504 444 Tel.: +34 91 753 18 00

UNITED KINGDOM

Tel.: 800 60 502 222



Efficiency

Responsibility

Globalization

Safety

Differentiation

Corporate Headquarters

Méndez Álvaro, 44 28045 Madrid. Spain Tel.: +34 91 753 81 00 www.repsol.com

Technical Service & Development Repsol Technology Centre

Ctra. de Extremadura A5, km 18 28931 Móstoles, Madrid. Spain Tel.: +34 91 753 86 00 atd_poliplefinas@repsol.com



Transparency

Flexibility

Responsibility

Innovation