



# *Chemicals*

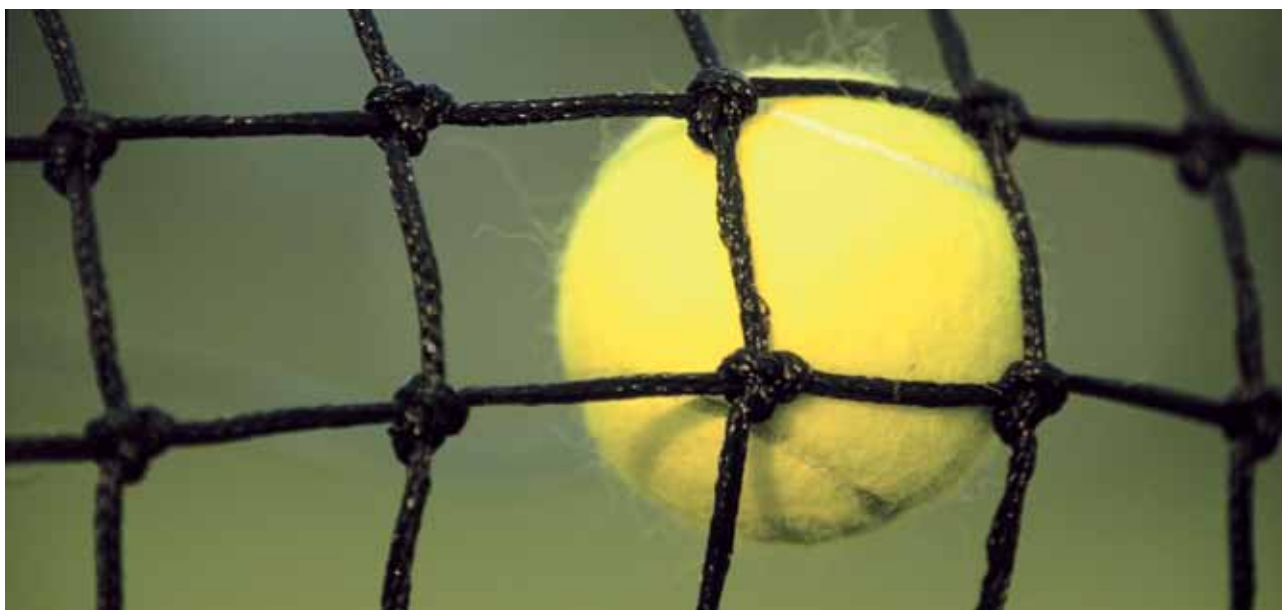
*Fibres Alcudia® Polyethylene/ Isplen® Polypropylene*

# Chemicals

In its chemical activity, Repsol produces and markets a wide variety of products, ranging from base petrochemicals to derivatives.

Repsol's chemical production in Europe is based at three large petrochemical complexes, two in Spain, in Puertollano and Tarragona, and one in Sines, Portugal.

The Polyolefin Business Unit has a production capacity of over 1,400,000 tonnes a year, distributed among low density polyethylene (LDPE) and high density polyethylene (HDPE), ethylene vinyl acetate copolymers (EVA), ethylene butyl acrylate copolymers (EBA) and polypropylene (PP).



## Fibres: bonded by commitment

As proof of its firm commitment to clients, Repsol is increasing its investment, acquiring new production technologies and developing new applications.

The acquisition of the Petrochemical Complex in Sines, has enabled Repsol to extend its product range with a new application: high-density polyethylene fibre.

This application gives the company the edge over its European competitors in technology and range: grades for easy processability tapes, with excellent optical and mechanical properties, and grades for production of medium to very high-toughness monofilaments. A vast range of products for manufacturing:

- Fishing nets
- High strength mooring ropes
- Ropes and twines
- Nets for packaging
- High-toughness tapes
- Protective netting

It is from this ability to adapt grades to our clients' needs, helping them to create better products, from which Repsol draws its inspiration to move ahead.

# Polypropylene

## NON-WOVEN TEXTILES

Grade	MFI	Properties	Applications
	ISO1133-g/10' 190°C		
	2,16 kg		
PP050Y1E	6	Good mechanical properties, general purposes	Tapes and monofilaments for general purposes. Very high toughness staple fibre
PP070Y1E	12	Gas fading resistance	Multifilament yarns and high toughness staple fibre
PP084Y1E	19	Narrow MWD, gas fading resistance	High tenacity BCF/CF, technical and hygienic low tittle non-woven, spunbonded and staple fibre
PP086Y1E	25	Narrow MWD, gas fading resistance	High speed lines, BCF/CF, POY yarns, technical and hygienic low tittle non-woven and staple fibre
PP086Y2E	25	Excellent processability, narrow MWD, gas fading resistance	High speed lines, BCF/CF, POY yarns, technical and hygienic low tittle non-woven and staple fibre
PP086U6E	25	Narrow MWD, gas fading resistance, UV light resistance	High speed lines, BCF/CF, POY yarns, technical and hygienic low tittle non-woven and staple fibre
PP089Y1E	30	Very narrow MWD, Gas fading resistance	High speed lines, technical and hygienic very low tittle non-woven and staple fibre
NW110M1	1200	Easy processing	Melt blown



## POLYPROPYLENE TECHNICAL TEXTILES

Grade	MFI	Properties	Applications
	ISO1133-g/10' 190°C		
	2,16 kg		
PP020G3E	0,90	Good mechanical properties, high thermal resistance	High toughness strapping, tapes, thermoforming and profiles
PP030G1E	1,70	Good balance of processability and properties, general purposes	High toughness tapes and monofilaments, extruded nets, twines and ropes
PP031G1E	2	Good balance of processability and properties, general purposes	High toughness tapes and monofilaments, extruded nets, twines and ropes
PP040G1E	3	Good processability, general purposes	Textile tapes, monofilaments and ropes
PP045G1E	4	Good processability	Textile tapes, monofilaments



Abbreviations **MWD:** Molecular Weight Distribution. **BCF/CF:** Bulked Continuous Filament/Continuous Filament. **POY:** Partial Oriented Yarn.

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# Polyethylene

## POLYETHYLENE TECHNICAL TEXTILES

Grade	MFI	Density	Polydispersity	Properties	Applications
	ISO1133-g/10' 190°C	ISO 1183 kg/m <sup>3</sup>			
	2,16 kg				
<b>R4805EP</b>	0,55	948	Medium	Low fibrillation tendency, high tensile strength at break, easy processing	Blown film for stretched tapes, Iso Mayer textile applications, tapes for webs and ropes
<b>R4805D1</b>	0,55	948	Medium	Low fibrillation tendency, high tensile strength at break, easy processing	Blown film for stretched tapes, high speed textile lines, tapes for webs and ropes
<b>R4806HT</b>	0,60	948	Narrow	Low fibrillation tendency, high tensile strength at break, easy processing	Blown film for stretched tapes, high speed textile lines, tapes for webs and ropes
<b>M5204</b>	0,45	952	Narrow	Highest toughness, high stretching ratios	Monofilaments for fishing nets with very high strenght
<b>M5206</b>	0,60	952	Narrow	Very high toughness	Monofilaments for fishing nets with very high strenght
<b>M5305</b>	0,50	953	Medium	High toughness	Ropes, fishing nets
<b>M5309</b>	0,95	953	Medium	Medium toughness, soft yarns	Monofilament for textile applications (nets and webs)

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# Quality, Safety and the Environment

All the petrochemical sites and those belonging to subsidiaries run by Repsol Chemicals use management systems which comply with current ISO 9001:2000 standards, referring to the Quality of processes ranging from manufacture to distribution, transport management and end product warehousing; OHSAS 18001 (Occupational Health and Safety Assessment Series), in all matters related to Safety and Occupational Health, and ISO 14001, concerning Environmental issues in its installations.

Technical Data Sheets and MSDS are available on: [www.chemicals.repsol.com](http://www.chemicals.repsol.com)

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## Corporate Headquarters

Pº de la Castellana, 278-280  
28046 Madrid (España)  
Tel.: +34 91 753 81 00  
Fax: +34 91 348 89 91

## Offices & Customer Service

### Spain

Pº de la Castellana, 280  
28046 Madrid  
**Customer service**  
Tel.: + 34 901 11 63 92  
Tel.: + 34 91 348 82 54  
[sacrq@repsol.com](mailto:sacrq@repsol.com)

### Portugal

Av. República  
Edifício República, 1º - Escritorio H  
Alcoitão, 2645-143 Alcabideche  
**Customer service**  
Tel.: + 800 73 776 543  
Tel.: +34 91 348 59 99  
[sacrq@repsol.com](mailto:sacrq@repsol.com)

### France

6 rue Jean Jaurés  
Immeuble Cofonca, 12 ème étage  
92807 Puteaux  
**Customer service**  
Tel.: + 800 00 737 765  
Tel.: +34 91 348 29 52  
[sac.france@repsol.com](mailto:sac.france@repsol.com)

### Italy

Caldera Business Park  
Via Caldera, 21 C/2  
20153 Milano  
**Customer service**  
Tel.: + 800 73 776 522  
Tel.: +34 91 348 29 54  
[sac.italia@repsol.com](mailto:sac.italia@repsol.com)

### Germany

Friedensstraße 11/Kaiserplatz  
D-60311 Frankfurt am Main  
**Customer service**  
Tel.: + 800 73 776 566  
Tel.: +34 91 348 29 50  
[sac.deutschland@repsol.com](mailto:sac.deutschland@repsol.com)

### United Kingdom

British Columbia House  
No 1 Regent Street  
London SW1Y 4NS  
**Customer service**  
Tel.: + 800 73 776 533  
Tel.: +34 91 348 29 56  
[sac.uk@repsol.com](mailto:sac.uk@repsol.com)

### Rest of the world

[exportchemicals@repsol.com](mailto:exportchemicals@repsol.com)



## Technical Service & Development Repsol Technology Centre

Ctra. de Extremadura A5, km 18  
28931 Móstoles (Madrid)  
Tel.: +34 91 348 86 00  
[atd\\_poliiolefinas@repsol.com](mailto:atd_poliiolefinas@repsol.com)

