

At Repsol we innovate constantly to offer you one of the widest ranges of ethylene copolymers in the market









New

Primeva ∇

Multiplying our EVA solutions:

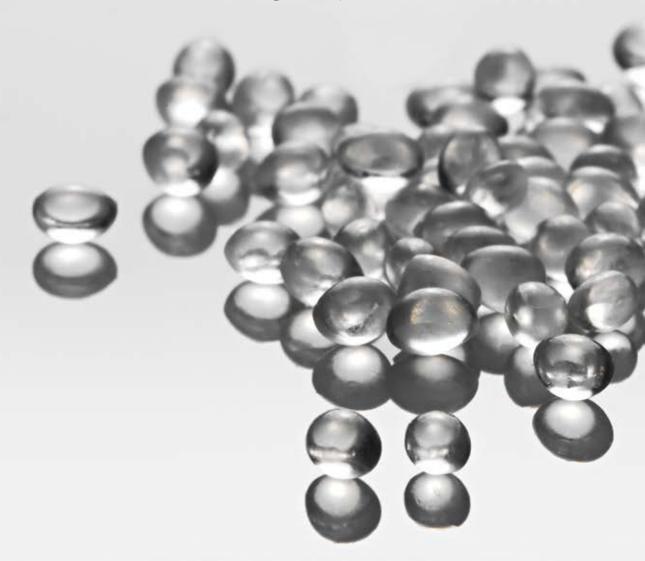
Trust Developing products to meet our clients' needs and supplying on a regular basis across Europe

Safety

Reducing residual VA content beyond European Legislation

Innovation

One of the largest portfolios in the industry, complying with the highest European certifications





Unique added value of EBA copolymers to boost your business through:

Versatility Our production process enables us to continuously increase our portfolio according to our clients' needs

Unique attributes

Its thermal stability, flexibility and transparency make it suitable for film applications

Excellent processing and adhesion properties to meet the requirements of cables and adhesive markets





Repsol



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





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 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.





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.

Repsol Primeva® & Repsol Ebantix®

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 EVA & EBA copolymers in the market.

over 4 years of experience in the market

During our **43 years of experience** 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.

But we know providing quality products is not enough. Ensuring **availability and supply** is also fundamental to run any business. Therefore Repsol is **the partner you can trust** when it comes to quality, flexibility and safety.





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:



Agriculture



& consumer products



Infraestructure



Automotive

Packaging





Repsol Primeva® & Repsol Ebantix®. Two solutions. Countless advantages

- Two complementary ranges of copolymers
- High quality products surpassing all European Standards
- High consistency
- High fluidity grades
- Constant product innovation
- Research of new applications
- Strong customer service orientation
- An integrated chemical company, a reliable supplier







- Increasing product portfolio and production capacity
- Surpassing all European quality standards
- In compliance with new the European food contact & safety regulations
- Reducing residual VA content beyond European legislation
- Building trust through guaranteed supply across Europe
- Constant development of new products and properties





Repsol Ebantix® advantages

- Our product manufacturing versatility allows us to develop a wide range of high quality grades
- EBA copolymers offer numerous advantages in the agricultural film sector, where Repsol has more than 70 years of experience
- EBA copolymers offer excellent thermal stability recommended for high demanding applications
- All products meet the highest quality standards and new food contact requirements
- Constant product innovation to meet our clients' needs





Applications

Hot melt adhesives

High compatibility with a broad range of resins and waxes.

Film / Sheets

Great mechanical and optical properties with good adhesion to several substrates [PE, PET, etc.].

Foams

Excellent performance in terms of abrasion resistance, elasticity, density and chemical resistance. They can be easily coloured.

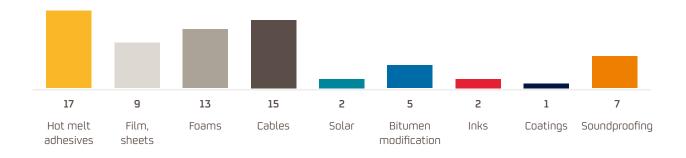
Cables

High filler loading with good dispersion, along with excellent processing and high cross-linking efficiency.

Solar

Good optical transmission of light and adhesion to glass and backsheet materials.

Number of Repsol Primeva® grades by applications





Excellent performance in asphalts and high compatibility with a wide range of bitumens.

Inks

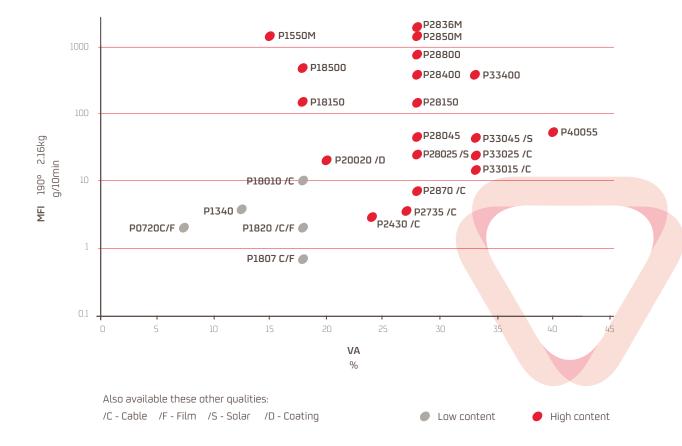
Good adherence and cohesion in gravure inks production, in addition to a good final appearance. Also soluble in aromatic solvents.

Coatings

Good adhesion to several substrates in addition to an easy processing and good optical properties.

Soundproofing

High filler acceptance and dispersion ideal for the production of high load compounds used in automobile industry.





Grade	VA	MFI	Melting temperature	Density	Vicat temperature	Ring-ball temperature
	[%] Internal method FTIR	g/10 min ISO 1133	°C Internal method (DSC)	kg/m³ ISO 1183	°C ISO 306	°C ASTM E-28
P0720C	7.5	2	103	926	80	-
P0720F	7.5	2	103	926	80	-
P1340	12.5	4	97	931	72	-
P1807C	18	0.7	87	941	62	-
P1807F	18	0.7	87	941	62	-
P1820	18	2	87	937	64	-
P1820C	18	2	87	937	64	-
P1820F	18	2	87	937	64	-
P18010	18	10	89	937	59	-
P18010C	18	10	89	937	59	-
P1550M	15	*	90	937	-	101
P18150	18	150	81	937	53	100
P18500	18	500	84	937	53	89
P20020	20	20	82	940	53	123
P20020D	20	20	82	940	53	123
P2430	24	3	77	944	-	162
P2430C	24	3	77	944	-	162
P2735	27	3.5	73	953	-	152
P2735C	27	3.5	73	953	-	152
P2870	28	7	71	950	-	142
P2870C	28	7	71	950	-	142
P28025	28	25	70	950	-	120
P28025S	28	25	70	950	-	120
P28045	28	45	69	950	-	111
P28150	28	150	67	950	-	89
P28400	28	400	68	950	-	85
P28800	28	800	69	946	-	85
P2850M	28	*	68	951	-	82
P2836M	28	**	68	946	-	81
P33015	33	15	61	956	-	127
P33015C	33	15	61	956	-	127
P33025	33	25	61	956	-	118
P33025C	33	25	61	956	-	119
P33045	33	45	59	956	-	112
P33045S	33	45	59	956	-	112
P33400	33	400	61	957	-	78
P40055	40	55	49	969	-	107

Hardness shore A/D	Hot melt adhesives	Film, sheets	Foams	Cables	Solar	Bitumen modification	Inks	Coatings	Soundproofing
ISO 868									
- / 46			\bigcirc	,					\bigcirc
- / 46		\bigcirc	$\overline{\Diamond}$						\bigcirc
- / 41		\bigcirc	\bigcirc						\bigcirc
- / 33		\bigcirc		\bigcirc					\bigcirc
- / 33		\bigcirc		\bigcirc					
90 / 38			\bigcirc						\bigcirc
90 / 38			\bigcirc	\bigcirc					
90 / 38		\bigcirc		\bigcirc					
90 / 36			\bigcirc						\bigcirc
90 / 36		\bigcirc	\bigcirc	\bigcirc					
88 / -	\bigcirc					\bigcirc			
83 / 30	\bigcirc								
83 /32	\bigcirc					\bigcirc			
84 / 30				\bigcirc		\bigcirc			
84 / 30								\bigcirc	
79 / 29	\bigcirc		\bigcirc						\bigcirc
79 / 29		\bigcirc	\bigcirc	\bigcirc					
81 / -			\bigcirc						
81 / -		\bigcirc	\bigcirc	\bigcirc					
80 / 28	\bigcirc		\bigcirc			\bigcirc			
80 / 28		\bigcirc	\bigcirc	\bigcirc					
78 / 26	\bigcirc					\bigcirc	\bigcirc	•	
78 / 26	\bigcirc				\bigcirc				
76 / -	\bigcirc								
54 / -	\bigcirc								
71 / -	\bigcirc								
69 / -	\bigcirc								
71 / -	\bigcirc								
64 / -	\bigcirc								
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75 / -				\bigcirc					
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75 / -	\bigcirc			\bigcirc					
73 / -	\bigcirc			\bigcirc					
73 / -					\bigcirc				
55 / -	\bigcirc								
51 / -	\bigcirc			\bigcirc			\bigcirc		
						* \ /::	- D (3.000	C)	i+v = 3 600 cD (1000C)



Applications

Hot melt adhesives

High resistance against thermal degradation and high compatibility with a broad range of resins and waxes.

Film / Sheets

Advanced mechanical and optical properties with good adhesion to several substrates (PE, PET, etc.). Suitable for multilayer films extrusion.

Foams

High flexibility and low shrinkage as well as excellent performance in terms of abrasion and chemical resistance. They can be easily coloured.

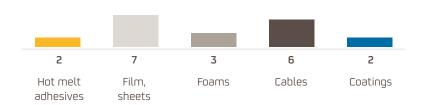
Cables

High filler loading with good dispersion, along with excellent processing and high cross-linking efficiency.

Coatings

Good adhesion to several substrates, easy processing and good optical properties.

Number of Repsol Ebantix® grades by applications









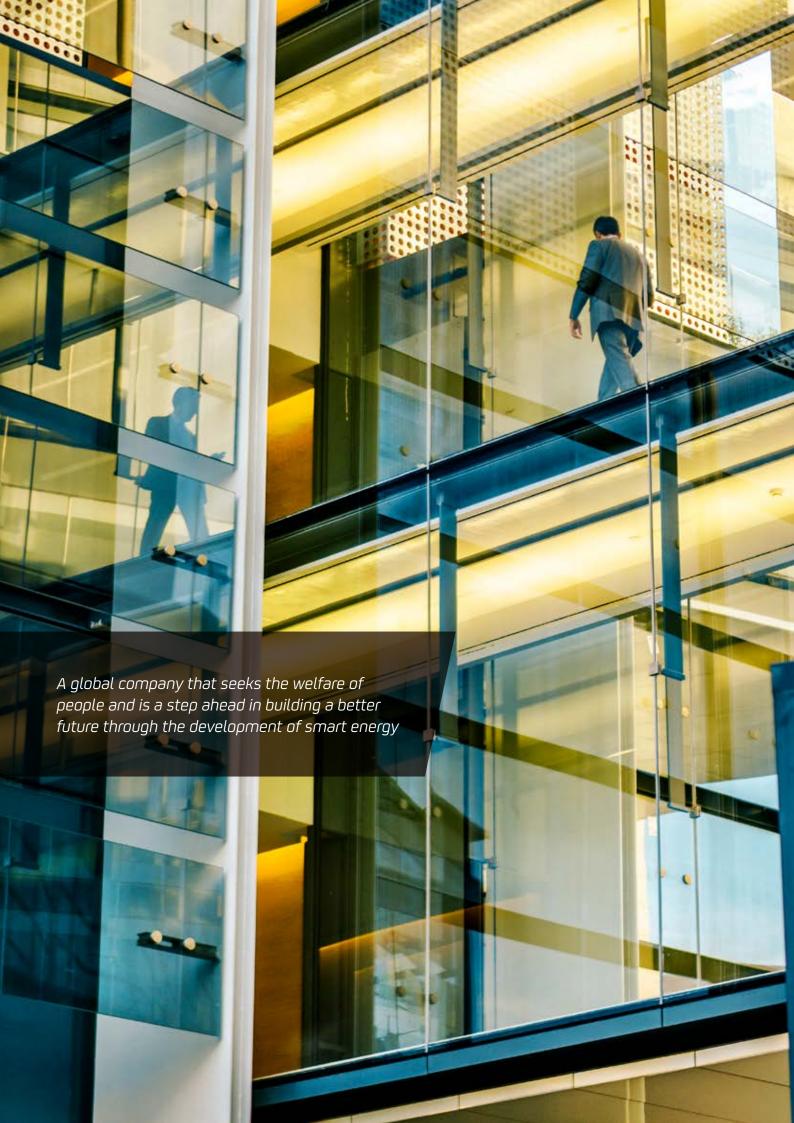


Grade	ВА	MFI Melting temperature		Density Vicat temperature		Ring-ball temperature	
	[%] Internal method FTIR	g/10 min ISO 1133	°C Internal method (DSC)	kg/m³ ISO 1183	°C ISO 306	°C ASTM E-28	
E303	3	0.3	110	923	92	-	
E803C	8	0.3	106	924	87	-	
E1240	12	4	100	925	73	-	
E1303	13	0.3	101	925	79	-	
E1704	17	0.4	96	925	70	-	
E1715	17	1.5	95	926	68	-	
E1770	17	7	93	924	61	-	
E20020	20	20	89	925	52	-	
E27150	27	150	76	925	-	100	
E33150	33	150	64	924	-	90	



Hardness shore A/D	Hot melt adhesives	Film, sheets	Foams	Cables	Coatings
ISO 868					
- / 46		\boxtimes			
- / 43		\boxtimes		\boxtimes	
91 / 38		\boxtimes	\boxtimes	\boxtimes	
94 / 39		\boxtimes		\boxtimes	
- / 36		\boxtimes			
90 / 31		\boxtimes	\boxtimes	\boxtimes	
90 / 33			\boxtimes	\boxtimes	\boxtimes
87 / 30		\boxtimes		\boxtimes	\boxtimes
76 / -	\boxtimes				
60 / -	\boxtimes				







Quality, safety and environment

Certifications

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

All petrochemical plants and part-owned subsidiaries run by Repsol Química comply with the current ISO 9001:2008 Standards, for the quality of processes from manufacture to distribution, transport management and end product warehousing. Petrochemical complexes, packaging facilities and logistics centres all have OHSAS 18001.2009 (Occupational Health and Safety Assessment Series) certifications for their rigorous safety measures. They also 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. Likewise, our petrochemical facilities in Puertollano and Tarragona are certified according to ISO 50001, as part of a process of continuous improvement, we continue to implement an Energy Management System, while Sines is in the process of obtaining it.

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. Repsol launched an energy and carbon plan between 2006 and 2013. Through this plan Repsol Química achieved a reduction of 0.56 million tonnes of CO_2 and is currently working on a new target covering the period 2014-2020, that aims for an additional reduction of 0.42 million tonnes of CO_2 by Repsol Química.

From 2006 to 2013, Repsol's activities as a whole attained a reduction of over 3.1 million tonnes of CO_2 . And for the period 2014-2020 another 1.9 million tonnes of GHG emissions are expected to be decreased.

Efficiency
Vision

Responsability

Differentiation

Safety

January 2017

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Transparency
Integrity
Flexibility
Responsibility
Innovation

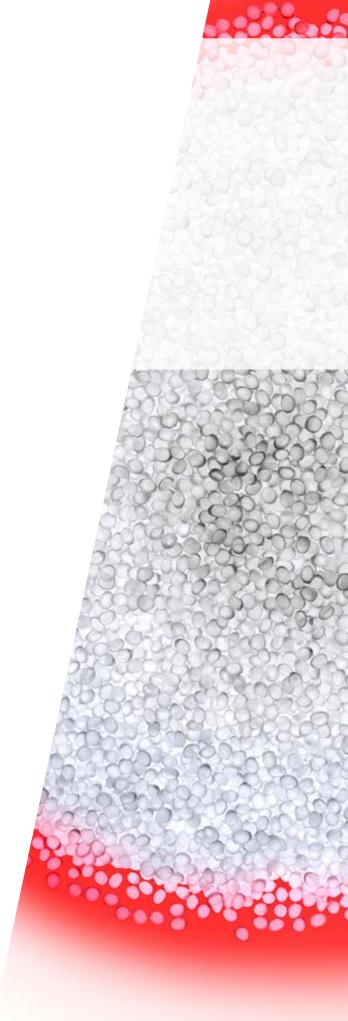
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