ExxonMobil

Performance polyethylene Product finder

Explore our industry leading Exceed™ S, Exceed™ XP, Exceed™, Enable™ and Exact™ performance polyethylene (PE) resins, which have been designed for a broad range of applications.

Exceed S PE resins for so much, so simply

Exceed S resins enable converters to rethink film design for simpler solutions. These resins deliver industry leading combinations of stiffness and toughness, while being easy to process. Exceed S polyethylene resins provide opportunities to reduce the complexity of film formulations and designs, while improving film performance, conversion efficiency, and packaging durability. Ideally suited for flexible films used in food, industrial and agricultural applications, converters benefit from:

- High performance with easy processing
- Stiffness and toughness with less blending
- Resin solutions that simplify operations and improve film and package durability
- Low melt pressure and high output on most blown film lines

Exceed XP PE resins for extreme performance

Exceed XP PE resins offer mechanical properties that allow converters to manufacture extremely damage-resistant films for highly demanding applications. Film formulations can be designed to provide extreme performance, while helping to manage costs through to the end-user.

- Extreme flex-crack and dart impact resistance
- Exceptional aged property retention
- Outstanding machine direction (MD) tear strength
- Enhanced flexibility and sealability

Exceed PE resins for sealability and optical performance

Exceed PE resins enable converters to manufacture films with a combination of outstanding sealing and best-in-class optical properties like high gloss and transparency. Due to the toughness and impact resistance delivered by Exceed PE resins, thinner films are possible, helping to reduce working capital requirements due to material savings and reduced inventory levels.

- Sealing performance and gloss and transparency
- Toughness, strength and impact resistance

Enable PE resins for easy processability

Enable PE resins deliver optimized performance by combining excellent processability and bubble stability with HAO properties in a single resin for more stable operations and better line output.

- Excellent processability and operational stability
- Higher output and downgauging potential

Exact plastomer resins to boost toughness, clarity and sealing performance in flexible packaging

Exact plastomer resins are designed to provide key performance properties in both monolayer and multilayer blown film applications, such as food packaging, laminated films and multilayer packaging film. Produced using ExxonMobil's proprietary metallocene technology, these high-performance plastomers can be blended with polyolefins to enhance heat-sealing performance and toughness in film applications.

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Product finder

		Melt index (g/10 min)	Density (g/cm³)	Melt flow ratio (MFR)	Peak melting temperature (°F)	Tensile strength at break MD (psi)	Tensile strength at break TD (psi)	Elongation at break MD (%)	Elongation at break TD (%)	Secant modulus MD - 1% secant (psi)	Secant modulus TD - 1% secant (psi)	Dart drop impact (g)[B]	Elmendorf tear strength MD (g)	Elmendorf tear strength TD (g)	Puncture force (lbf)	Puncture energy (in lb)	Flexible food packaging	Liquid packaging	Medium and heavy duty sacks	Compression packaging	Overwrap packaging	Soft-shrink packaging	Collation shrink packaging	Stretch packaging	Stretch hood packaging	Other films & liners	Agricultural films	Geomembranes, aqua/thick liners	Hygiene	Molding & compounding	Wire and cables	Raffia packaging	
		Properties															Applications																Features
Exceed™ S performance polyethylene	Exceed S 9243ML*	0.85	0.926	27-30	257	11000	8000	460	690	42000	53000	480	210	540	11	28	■	■	■	■					■	■			■				Extend the limits of stiffness and toughness balance, excellent film processing
	Exceed S 9272ML*	0.80	0.920	28-31	256	10000	8000	430	660	32000	40000	670	210	510	11	31	■	■	■	■					■	■			■				Extend the limits of toughness and stiffness balance, exceptionally high toughness, excellent film processing
	Exceed S 9333ML*	2.0	0.925	28-31	255	9200	7300	560	690	38000	48000	460	210	480	9	24	■	■	■					■		■			■		■		High stiffness & toughness, exceptionally easy extrusion at low melt pressure
		Properties															Applications																Features
Exceed™ XP performance polyethylene	Exceed XP 6026*	0.20	0.916	48-52	230	9400	9700	390	640	26000	32000	680	60	400	15	43	■	■	■			■	■		■	■	■							Melt strength, puncture and impact resistance, toughness
	Exceed XP 6056*	0.50	0.916	36-38	228	8500	8600	390	710	24000	29000	510	80	460	13	39	■	■							■	■	■							Extrudability on typical LDPE equipment, toughness, seal strength.
	Exceed XP 7021ML*	0.20	0.911	-	-	11000	10000	360	600	17000	23000	1100	40	210	15	45	■	■					■	■	■	■								Bubble stability, mechanical performance, sealing performance, optical properties
	Exceed XP 7052ML*	0.50	0.912	-	-	9700	9700	410	630	16000	19000	900	80	270	14	46	■	■					■	■		■	■							Bubble stability, mechanical performance, sealing performance, optical properties
	Exceed XP 8318*	1.0	0.918	28-30	250	9300	7500	370	660	28000	33000	670	370	470	10	29	■	■							■	■	■							Stiffness, impact resistance, extrudability and higher heat resistance.
	Exceed XP 8346	3.5	0.916	-	-	7000	5500	500	680	18000	18000	290	280	350	8	34	■							■				■						Processability, puncture, toughness
	Exceed XP 8358*	0.50	0.918	28-30	250	10000	7900	300	640	29000	36000	710	530	500	12	33	■	■	■						■	■	■							Stiffness, impact resistance
	Exceed XP 8656*	0.50	0.916	28-30	250	10000	7300	300	640	27000	33000	750	500	540	12	30	■	■	■						■	■	■							Flex-crack, dart resistance, bubble stability
	Exceed XP 8784*	0.80	0.914	28-32	250	9200	8000	330	620	24000	31000	910	310	460	12	37	■	■																Easy extrusion, bubble stability, step-out mechanical performance, excellent sealing performance
		Properties															Applications																Features
Exceed™ performance polyethylene	Exceed 1012*	1.0	0.912	-	238	8300	8000	450	600	17000	18000	900	200	310	13	47	■	■	■						■				■					Low temperature toughness, sealing, impact and puncture resistance
	Exceed 1015*	1.0	0.915	-	242	9300	8200	470	620	21000	24000	740	210	360	12	40	■	■	■															Low temperature toughness, impact strength and puncture, heat sealing and hot tack performance
	Exceed 1018*	1.0	0.918	-	245	8500	7700	480	640	27000	29000	590	250	430	11	35	■	■	■	■	■			■	■	■			■	■				Tensile, impact strength, puncture
	Exceed 1023*	1.0	0.923	-	250	7300	5900	510	600	33000	35000	300	280	510	10	19	■	■	■															Tensile, impact strength, puncture and excellent drawability
	Exceed 1327*	1.3	0.927	-	253	8300	7300	600	700	45000	52000	140	160	430	11	27	■	■	■		■		■					■	■					Tensile, stiffness, impact strenght, puncture, drawability
	Exceed 1518*	1.5	0.918	-	244	8600	7900	540	660	26000	28000	610	300	430	12	38	■	■	■															Tensile, impact strength and puncture and excellent drawability
	Exceed 2018*	2.0	0.918	-	243	8600	8000	590	690	24000	27000	580	330	460	11	37	■	■	■		■					■			■					Extrudability, tensile, impact strenght, puncture
	Exceed 2718	2.7	0.918	-	243	11000	7400	470	720	16000	19000	200	170	420	11	37												■	■					Tensile, impact resistance, puncture toughness, for cast film
	Exceed 3518	3.5	0.918	-	237	11000	6800	510	680	16000	18000	140	190	500	11	38	■							■				■		■				Tensile, impact resistance, puncture toughness, for cast film
	Exceed 3527	3.5	0.927	-	250	8900	5900	530	750	27000	30000	60	70	400	10	23					■							■						Stiffness, tensile, impact and puncture resistance
	Exceed 3812	3.8	0.912	-	230	6900	6300	450	610	13000	14000	610	250	440	-	-	■							■	■	■			■					Sealing, caulkability, toughness, impact and puncture resistance, for cast film
	Exceed 4518	4.5	0.918	-	237	9700	7000	500	730	15000	18000	140	150	460	11	39			■					■	■	■			■		■			Tensile, impact resistance, puncture toughness, for cast film
	Exceed 4536	4.5	0.936	-	257	6200	4800	580	720	54000	58000	<60	30	110	6	9.9									■			■						Processability, stiffness, toughness, mechanical performance, hot-tack, for cast film
	Exceed 0015	15	0.918	-	235	-	-	-	-	-	-	-	-	-	-	-	■	■											■		■			Organoleptics, toughness, for extrusion coating and injection molding
	Exceed 0019[A]	19	0.918	-	237	-	-	-	-	-	-	-	-	-	-	-	■	■											■					Organoleptics, toughness, for extrusion coating and injection molding
		Properties															Applications																Features
Enable™ performance polyethylene	Enable 2005*	0.50	0.920	-	239	8800	8000	480	710	30000	29000	240	90	510	12	33	■	■	■				■	■		■		■						Processability, toughness, cast film available
	Enable 2010*	1.0	0.920	-	237	7900	7500	510	720	29000	33000	180	130	550	11	28	■	■	■					■		■		■			■			Processability, toughness, cast film grade available
	Enable 2305*	0.50	0.923	-	241	8400	7600	480	730	35000	41000	170	70	620	12	29	■		■			■	■		■	■								Processability, toughness, antiblock options available
	Enable 2703*	0.30	0.927	-	246	9100	7500	480	750	45000	55000	140	40	670	11	25	■	■	■	■			■				■							Stiffness, toughness, processability
	Enable 2705*	0.50	0.927	-	246	8300	7200	520	760	44000	52000	130	50	730	11	24	■	■	■	■			■		■	■	■							Processability, stiffness and toughness
	Enable 3505*	0.50	0.935	-	253	8400	6700	550	790	62000	75000	70	20	610	11	20	■	■	■	■			■				■	■						Processability, stiffness and toughness, shrink
	Enable 4002*	0.25	0.938	-	262	9700	7000	490	810	78000	110000	60	10	600	11	19	■	■	■	■	■		■		■		■							Bubble stability, melt strength, stiffness, shrink
	Enable 4009*	0.90	0.938	-	259	8100	6300	600	830	74000	86000	< 60	20	550	8	8.7			■	■	■				■		■							Extrudability, stiffness and toughness
	Enable 9365*	0.50	0.935	-	255	-	-	-	-	-	-	-	-	-	-	-													■					Outstanding balance between extrusion processing and properties, including hydrostatic strength
		Properties															Applications																Features
Exact™ plastomer resins	Exact 3236*	2.0	0.908	-	237	8600	8200	480	570	13000	13000	800	210	280	13	56	■	■							■				■					Low seal initiation temperature and high toughness
	Exact 3237*	2.0	0.908	-	237	8600	8200	480	570	13000	13000	800	210	280	13	56	■	■							■				■					Low seal initiation temperature and high toughness with slip and anti-block added

Film properties are represented according to additive used and may vary according to additive package requirements. Products may not be available in one or more countries – please contact your Sales Representative for more information. See product data sheets for additional typical properties. Typical properties are not to be construed as specifications. All film conditions and test methods are specified in the product data sheets. Formulations and conditions will change depending on your application and formulation. Film gauge: 1 mil film for blown grades, 0.8 mil for cast grades.

A: Exceed 0019 product properties data available at **exxonmobilchemical.com**

B: Dart drop impact is based on ASTM D1709A, which may vary by country.

* Please contact your ExxonMobil representative for availability of products containing alternative polymer processing aid (PPA) PE

- Please contact your ExxonMobil representative for details regarding specific technical data.

Contact us to discuss your needs, visit **exxonmobilchemical.com/pe**

North America

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Performance polyethylene

Exceed™ S PE resins for so much, so simply
When your applications are so demanding a compromise between stiffness and toughness cannot be accepted, and easy processability is essential, Exceed S PE resins are the solution that elevates performance, while simplifying operations.

Exceed™ XP PE resins for extreme performance
If your applications are highly demanding, Exceed XP PE resins offer the mechanical properties needed to truly deliver extreme performance.

Exceed™ PE resins for sealability and optical performance
For your applications that need a combination of outstanding sealing and best-in-class optical properties, Exceed PE resins are the answer.

Enable™ PE resins for easy processability
When you are looking for more stable operations and better line output, Enable PE resins deliver excellent processability and bubble stability with HAO properties in a single resin.

Exact™ plastomer resins
Enhance heat-sealing performance and toughness in film application.

Alternative PPA PE
ExxonMobil has developed performance PE products with an alternative non-fluoropolymer polymer processing aid (PPA). Please contact your ExxonMobil representative for availability.

Specialty copolymers

Escorene™ Ultra EVA
ExxonMobil™ EVA
For agricultural, photovoltaic cell encapsulation and packaging. Enhances sealing performance in packaging.

Escor™ EAA
For powerful adhesion to metal and metal substrates.

ExxonMobil™ EnBA
For adhesion to polar substrates, without the need for primers.

Optema™ EMA
For softness, thermal stability and chemical adhesion.

LLDPE, LDPE, HDPE resins

LLDPE resins
If your applications need an optimal balance of toughness and stiffness, specify ExxonMobil™ and ExxonMobil™ NTX linear low-density polyethylene (LLDPE) resins.

LDPE resins
For your applications that require a combination of high melt strength, excellent optical properties, and outstanding shrink performance, turn to ExxonMobil™ low-density polyethylene (LDPE) resins.

HDPE resins
When your applications need a balanced combination of processability, toughness and stiffness, our high-density polyethylene (HDPE) resins are the solution.

HDPE resin for MDO films
ExxonMobil has developed a novel high density polyethylene (HDPE) grade, ExxonMobil™ HD7165L, for Machine Direction Oriented (MDO) PE film applications. Designed for recyclability*, HD7165L can help converters create mono-material laminates to replace multi-material laminate structures which can be difficult to mechanically recycle. Offering excellent optical properties and outstanding mechanical properties, ExxonMobil™ HD7165L is well suited to help enable mono-material laminated packaging.

Paxon™ HDPE resins
If your rigid applications need a step-change in ESCR (Environmental Stress Cracking Resistance) performance without compromising stiffness, impact, top load, or processability, Paxon HDPE resins are a perfect choice.

* Recyclable in communities with programs and facilities in place to collect and recycle plastic film

Product brands may not be available in all regions.

Test	Based on test method
Density	ExxonMobil method
Melt index (190°C/2.16 kg)	ExxonMobil method
Melt flow rate (MFR)	ExxonMobil method
Peak melting temperature	ExxonMobil method
Tensile strength	ExxonMobil method
Elongation at break	ExxonMobil method
Secant modulus	ExxonMobil method
Dart drop impact	ExxonMobil method
Elmendorf tear strength	ExxonMobil method
Puncture force	ExxonMobil method
Puncture energy	ExxonMobil method
Puncture at 250% stretch, (on highlight tester, for rel. comparaison only)	ExxonMobil method
Cling force	ExxonMobil method
Unwinding noise	ExxonMobil method

Contact us to discuss your needs,
visit **exxonmobilchemical.com/pe**

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