



Exact™ polyolefin elastomers

Innovative polyolefin elastomers for low-density, high-durability foam applications

From shoe soles to yoga mats, manufacturers can create soft, lightweight flexible foam products that are both soft and tough.



Light weight

Lighter weight could be achieved while maintain hardness



Durability

Enhances product strength and tear resistance



Softness

Provides a soft, comfortable touch feeling



Rebounding

Enables good rebounding performance and low compression set



Processability

Good compatibility in EVA foam for easy processing

Data and results presented herein apply specifically to the noted application under this fact sheet. Your results may differ depending on factors such as operating conditions, equipment and materials used.

Exact™ polyolefin elastomers (POE), produced through ExxonMobil Chemical's proprietary metallocene technology, could provide optimized mechanical performance and resilience to EVA foamed products. These innovative polymer modifiers with different melt index (MI) and density can fit a range of foaming processes and achieve lighter weight while retaining performance.

At ExxonMobil we continue to demonstrate commitment to the industry. By expanding our plastomer portfolio with additional octene grades available globally, we can help manufacturers meet increasingly demanding requirements in polyolefin application.



The Exact™ POE 5000 series offers a density range of

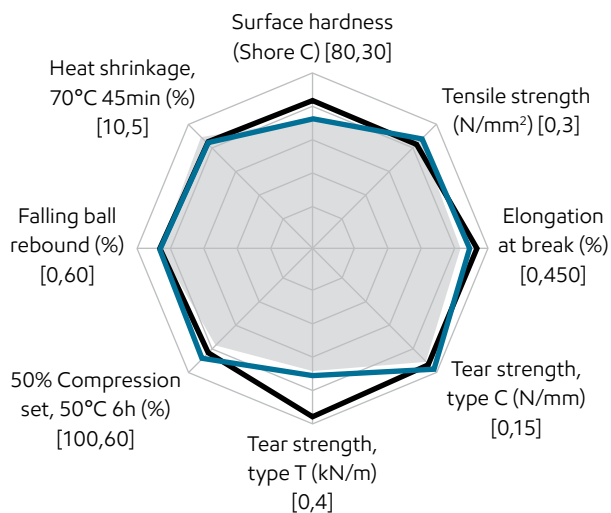
0.868–0.900 g/cm³

Discover the processing and product performance advantages provided by Exact™ polyolefin elastomers

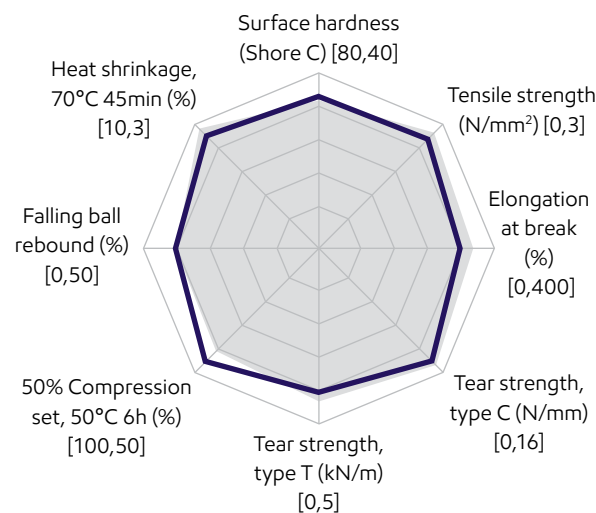
Excellent performance for foam processes

In comparison tests with a reference copolymer, Exact™ 5061, Exact™ 5171 (chart on left) and Exact™ 5101 MX (chart on right) demonstrate excellent performance in key areas, such as compression set, surface hardness and elongation at break.

Ingredient	phr
EVA (28%VA)	70
Exact or reference	30



Reference:
 POE (ethylene octene copolymer)
 Melt index: 0.50 g/min @190°C/2.16kg
 Density: 0.868 g/cm³
 Linear expansion ratio: ~1.55



Reference:
 POE (ethylene octene copolymer)
 Melt index: 1.1 g/10min @190°C/2.16kg
 Density: 0.902 g/cm³
 Linear expansion ratio: ~1.55

Test method: Slip resistance - TM144:2011; Surface hardness - ASTM D 2240-2015; Heat shrinkage - TM 70:2001; Tensile strength - ASTM D 412-16 Method A; Elongation at break - ASTM D 412-16 Method A; Tear strength - ASTM D 624-00 (R2012); Compression set - ASTM D395-16 Method B; Falling ball rebound - With reference to ASTM D 3574-17 Test H.

Typical properties*

Properties	Exact™ 5061	Exact™ 5101MX	Exact™ 5171	Exact™ 5371	Test based on
Melt index, 190°C/2.16 kg g/10 min	0.50	1.1	1.0	5.0	ASTM D1238
Density g/cm³	0.868	0.900	0.868	0.868	ASTM D1505
Peak melting temperature °C (°F)	54 (129)	94 (200)	55.2 (131)	57.7 (136)	ExxonMobil method
Vicat softening point °C (°F)	55.8 (132)	91.2 (196)	54.2 (130)	50.3 (122)	ExxonMobil method
Durometer hardness Shore A/D	70A	39D	70A	68A	ExxonMobil method
Tensile strength MPa (psi)	>10 (>1500)	>28 (>4100)	>7.8 (>1100)	>5.3 (>760)	ExxonMobil method
Elongation at break %	>800	>800	>800	>800	ExxonMobil method

* Typical properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobilchemical.com

Contact us for more information:
exxonmobilchemical.com/exact

What's new: ExxonMobil Signature Polymers

All our polymers are now positioned under a single portfolio brand: Signature Polymers. The aim is to simplify our product architecture and naming to improve portfolio navigation for you. We would like to stress that our commitment to high quality products remains the same. The composition of the products are unchanged, it is only the names that updated. We will be making these modifications over the next few months, through mid 2025, so you will see both old and new grade names highlighted during that time. Grade slate of Exact™ polyolefin elastomers will keep unchanged.

Want to see what's changed in our portfolio? Go to exxonmobilchemical.com/sptransform

ExxonMobil
Signature Polymers

Bring your impossible

ExxonMobil Signature Polymers was born from the belief that people fuel progress. From automotive and construction to packaging, agriculture, industrial, and beyond, we leverage the scale and reach of ExxonMobil to deliver the insights and innovations that empower our diverse, global partners to take their businesses to new heights. We continuously work to provide the listen-first, service-driven, game-changing collaboration that unlocks opportunities for our partners and advances their sustainability and business goals.



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